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For Purposes of Review Only
November 25, 1946

A SUGGESTED PLAN OF ORGANIZATION

FOR

A FOREST CREDIT SYSTEM FOR THE UNITED STATES

PRELIMINARY

UNITED STATES DEPARTMENT OF AGRICULTURE
U.S., FARM CREDIT ADMINISTRATION
KANSAS CITY 8, MISSOURI

September 28, 1945

M. R. Benedict, 1892 -
J. D. Black
S. T. Dana
L. K. Pomeroy

During the past 30 years there has been built up in the United States a comprehensive, Government-sponsored credit system for serving the nation's farmers. As yet no similar facilities are available for privately owned American forest enterprises, though some 340 million acres of forest lands are privately held and there is need for considerable investment in forest improvement and maintenance if the public interest in sound, productive forestry is to be served adequately. Privately supplied credit available to forest owners is largely confined to short-term loans for harvesting stands already grown.

The need for a transition from exploitation of virgin forest resources to the maintenance of an adequate continuing program of forest production and utilization is widely recognized. Various legislative proposals have been made for establishing suitable credit facilities for serving the forest enterprises of the nation. Most of these propose establishment of forest credit agencies within the Farm Credit Administration.

In order that we may have at hand a carefully considered analysis of this problem and suggestions in regard to it by people not in the Government, I am asking that you undertake a committee study of the credit needs in American forestry and suggest such plans as in your judgment will best meet these needs. Such an analysis will, I feel, be helpful and suggestive to legislators concerned with these problems and to the staffs of the Farm Credit Administration and the United States Forest Service.

Facilities will be provided for your committee to come together from time to time, and such information as you may desire from myself or members of my staff will be made available to you insofar as we are able to supply it. I am assured also that the cooperation and counsel of the Forest Service will be available to the committee. It is my desire, however, that you approach the problem as an outside committee, looking at it in broad terms of the public interest and the welfare of American forest owners and operators. Such opinions and information as you may request from myself or members of my staff will be only for your consideration along with those from forestry groups and others you may wish to consult. Your report should represent your own views as arrived at after free discussion and study. All of you have had

considerable contact with forest problems and the agricultural credit agencies. I feel certain that your conclusions and suggestions will be helpful to me and to others working with these problems.

Sincerely,

I. W. Duggan

I. W. Duggan
Governor

Washington, D. C.
June 27, 1946

Governor I. W. Duggan
The Farm Credit Administration
United States Department of Agriculture
Washington, D. C.

Dear Governor Duggan:

We have the honor to transmit herewith the report of the committee to which you assigned the task of considering the credit problems of forest owners and operators in the United States and suggesting a plan of organization and general policies suited to the needs of the industry and the nation.

After some months of study we have reached certain conclusions which are set forth in the report. These are based in part on our own studies and discussions and in part on earlier reports and legislative proposals relating to these problems. We have had in addition the counsel of a number of people from other agencies of the Government, particularly the United States Forest Service.

It is our judgment, like that of other groups and individuals that have studied the problem in recent years, that there is need for a Government-sponsored system of credit for forest properties and that this could be most economically and efficiently handled if established within the Farm Credit Administration. Our recommendations are in accord with those contained in several of the bills introduced in the Congress during recent years in proposing a single Forest Credit Bank with regional branches rather than a series of regional banks. This we believe to be in the interest of efficiency and economy. Our report differs from most of the legislative proposals thus far introduced in placing more emphasis on the need for close integration with the existing farm credit agencies and stressing the need for considerable technical aid in association with credit in improving forest practice, especially on the smaller holdings.

A very large portion of the potentially productive forest land of the nation is on farms and in small tracts not associated with farms. This makes especially important the development of a more active interest in forest loans on the part of the land banks, the production credit associations, and other related agencies of the farm credit system. As indicated in the report, some modifications in policies and in legislative authorizations of these units are needed in addition to those relating to the Forest Credit Bank itself. Such an integrated program can be both more effective and more economical than one in which a specialized Forest Credit Bank undertakes to serve all types of forest enterprise.

The committee wishes to emphasize the importance of measures looking to the ends discussed in the report. The nation cannot continue its

traditional practice of cutting off its virgin forests and leaving cut-over lands relatively unproductive unless it is prepared to face the prospect of serious shortage in timber products, low qualities of output, and high prices. What is needed is a major transition in the industry from a policy of timber mining to one of continuous production. This will require considerable investment and a strong program of technical aid in introducing improved forest practice.

The members of the committee appreciate greatly the freedom given them under the assignment and the wholehearted cooperation of yourself and members of your staff. The views expressed are our own, however, and do not presume in any way to represent those of officials or groups in the Farm Credit Administration or the United States Forest Service.

The committee wishes also to acknowledge the counsel and assistance of Mr. C. D. Orrell, Chief Reviewing Appraiser of the Federal Land Bank of Columbia, South Carolina, and Dr. Walter Bauer of the Farm Credit Administration, who have served as liaison men from the Farm Credit Administration, and of Messrs. R. E. Marsh, W. N. Sparhawk, and P. E. Malone of the Forest Service, who have been most helpful in furthering its work.

Very truly yours,

John D. Black

John D. Black

S. T. Dana

S. T. Dana

L. K. Pomeroy

L. K. Pomeroy

Murray R. Benedict

M. R. Benedict, Chairman

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PRELIMINARY

A Committee Report

by

J. D. Black, Harvard University
S. T. Dana, University of Michigan
L. K. Pomeroy, Ozark-Badger Lumber Company, Wilmar, Arkansas

and

M. R. Benedict, University of California, Chairman

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THE FOREST SITUATION IN THE UNITED STATES 1/

From colonial days, forests and forest products have played an important part in the social and economic life of the nation. They have protected our soils and waters, have furnished recreation, have housed our population, and have supplied essential raw materials and consumption goods. After 3 centuries of exploitation, they still support a wide variety of wood-using industries which offer opportunities for the employment of labor and the investment of capital that compare favorably with those offered by other major groups of industries. These opportunities, however, could be materially expanded by improved forest management, which would increase the productivity of the forest on a permanent basis.

The area of forest land both suitable and available for the production of timber for commercial purposes appears to have become stabilized at about 462 million acres. This is nearly one-fourth of the total land area of the United States and is considerably larger than the area used for growing farm crops. As a result of the methods of harvesting used, nearly all of the cut-over lands are poorly stocked and some 77 million acres must be planted in order to restore them to productivity within a reasonable time.

Existing stands have a total volume of 1,764 billion board feet of saw timber and 2.5 billion cords of cordwood. Forest values now aggregate more than 10 billion dollars and tend to fluctuate less than do the values of agricultural lands. The extent to which depletion has taken place is indicated by the fact that while 74 percent of the commercial forest area is in the east, mostly in cut-over lands, 69 percent of the sawtimber stand is in the west, chiefly in virgin forests.

The wood supplied by the commercial forests enters into a multitude of products such as lumber, plywood, paper pulp, rayon, and alcohol from which, in turn, come houses, furniture, books, shirts, and synthetic rubber. If all economic activities are regarded as resting in the final analysis on natural resources, the wages and salaries associated with the utilization and distribution of forest resources amounted in 1940 to about 15 percent of the total wages and salaries paid in all of the manufacturing industries and to nearly 12 percent of the total wages and salaries paid in all private productive enterprises, including not only manufacturing but also agriculture, construction, transportation, and trade.

The continuance of these contributions to our economic well-being is endangered by the lack of good forest management and by inefficient wood utilization. In spite of the constructive practices now being adopted by many owners, prewar estimates indicated that the drain on the forests still exceeded growth by 50 percent in sawtimber stands and by 20 percent in all stands. This over-cutting is depleting still further stands that are already understocked and is also resulting in a steady depreciation in the quality of the second-growth timber. Losses of

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1/ This subject is treated more fully in Appendix A.

material in logging, milling, and manufacturing are so heavy that only a third or less of the wood in the standing tree reaches the consumer.

The remedy for this situation lies in management and utilization practices that will grow more and waste less wood and that will prolong its life in service. Appropriate measures aimed at these objectives will make it possible gradually to reverse this trend so as to permit of materially increased use of wood without over-cutting. The Forest Service has estimated that such measures could eventually create, directly and indirectly, some 2,500,000 permanent new jobs, with corresponding opportunity for the employment of new capital.

The execution of such a program is primarily a task for private industry. Nearly three-fourths of the commercial forest lands are in private ownership and nine-tenths of the present cut comes from these lands. Even if there should be a substantial increase in public ownership, the great bulk of the forest lands of the country, including those which are most accessible and most productive, will undoubtedly remain in private hands, while the harvesting and utilization of the timber will continue to be handled entirely by private industry.

This situation does not, however, relieve the public from responsibility. In the long run whatever happens to the forests means more to the individuals who use the goods and services that the forests provide and to the communities which the forests support than it does to those who happen to have title to them or to be employed in harvesting their products. So clear-cut and so urgent is the public interest that it has been generally recognized as justifying public cooperation in the management and utilization of forest lands. One of the many forms that such cooperation may properly and effectively take is to provide credit to the industry on more favorable terms than are now available.

Forestry, like other industrial enterprises, must operate largely on borrowed capital. Few owners have sufficient funds of their own to acquire, build up, and operate forest properties on the sustained-yield basis which alone can provide a permanent supply of timber on a scale adequate to meet the country's needs. The very nature of the forest means that most capital expenditures for its management as a crop rather than as a mine will be returned to the investor only over a considerable period of years. For this reason, many owners who would like to adopt constructive practices can do so only if they are able to obtain credit for a longer period and at a lower cost than is not possible through private agencies.

The character of the forest problem and the scope of the national interest involved justify Federal participation in its solution. The provision of credit on terms that are safe and reasonable from the standpoint both of the lender and the borrower constitutes one important means by which the Government can help the private owner in the difficult task of changing his management practices from liquidation to sustained-yield forestry.

EXISTING CREDIT FACILITIES FOR FORESTRY ARE INADEQUATE

At the present time the credit facilities available for constructive forestry are even more inadequate than were those available for farming when the Federal land banks were established in 1916. Before the creation of the land bank system, farm mortgage credit was supplied in considerable volume through channels that had grown up over the years without Government assistance. Commercial banks, life insurance companies, and farm mortgage corporations were doing a sizable business in making mortgage loans on farms. In addition, much credit was provided in the form of individual private loans.

The loans available through these channels were not satisfactory to farmers because of the short periods for which borrowings could be made, the lack of amortization provisions, and the high and uneven rates of interest charged. Nevertheless, loans could be obtained in most areas and, except in business depressions, could usually be carried along by renewals for the period desired. While the system exposed borrowers to excessive risks in times of depression, did not provide adequately for orderly repayment, and was not a very efficient mechanism for transferring funds from surplus to deficit areas, it is likely that the forces of competition would eventually have overcome some of these defects. Partly through the influence of land bank competition, the loan procedures of banks and insurance companies have been much improved in recent years. A very substantial part of the farm mortgage loan business is handled by them at the present time on terms very similar to those provided by the land banks.

In forestry, there has not been a comparable development of private credit. Such loans as are made usually contemplate early liquidation of merchantable timber rather than development of woodlands or a continuing program of timber production. Loans made tend to force early and often excessive liquidation of stands. Part of the reason is that credit has not been available to forestland owners at low rates of interest and for long terms. A more important reason, however, is that American forestry is still, in the main, an industry exploiting natural resources, rather than one based on continuous maintenance of the timber supply. This is a natural and suitable policy for a pioneer country with an abundance of timber but is one that is no longer appropriate for the United States.

Continuation of past policies will lead to serious shortages of forest products and result in the ultimate liquidation of many forest-based industries and communities. The time has come, therefore, to encourage forest production in a way that will maintain the forest enterprises and communities as a permanent part of the national economy. The importance of this from the standpoint of timber supplies, soil and water conservation, recreation, and other values is so widely recognized that it need not be discussed here.

As already stated, the lands still in forest will in most cases find their highest usefulness in timber production. Although many current owners of timber properties will continue to be interested primarily in liquidating investments they now have in mature timber and may not wish to undertake

sustained-yield forestry nor to make the new investments required for initiating it, a great many others will wish to stabilize their operations and put them on a permanent basis. There is a growing interest among forest-land owners in building a stable continuing industry under which the basic resource can be maintained, investments in facilities protected, and more stable forest communities developed. For many of them this will require larger investments than they can undertake on their own funds. At best, the transition to a more stable and adequate forestry program on privately held forest lands will require considerable time. Suitable foresight with respect to coming needs calls for encouraging an early start on the kind of program that is almost universally recognized as necessary to the future well-being of the nation.

Neither the need for, nor the probable demand for forest credit can be adequately measured by amounts used in the past or by amounts sought in the past. Two things are needed: One, a well-planned mechanism whereby a larger flow of funds into forest development is made feasible and attractive to forest-land owners and, two, a considerable stimulation of interest in making such investments. Few industries requiring large, long-term investment are able to finance directly and wholly on funds owned by the entrepreneurs. Note, for example, the large use of borrowed funds in railroads, factories, farms, and urban building. Most of these latter enterprises are now able to obtain long-term funds for development at relatively low rates of interest. In many cases the Government has taken active steps to make that possible.

The large volume of savings in non-entrepreneurial hands makes the expansion of constructive investment opportunities both desirable and feasible. In fact, the finding of productive outlets for the growing volume of private savings in the United States is a problem of increasing importance. Few fields offer investment possibilities better suited to the particular conditions of the United States over the next decade or 2 than do those in improved forest production. Savings seeking investment are likely to be large and production for immediate consumption may outrun current demand once the war-induced shortages have been met. Where investment in development of stands is involved and similarly where deferred cutting is required, there would be a relatively long period of absorption of capital and in most cases a product reaching the market only after some years.

While the potentialities are as outlined above, it must be recognized that a program that involves a major change in outlook in the industry and considerable reorganization will get under way slowly. The demand for credit of this kind is not expected to be large in the early years. Educational work coupled with gradually accumulated experience in the field should contribute to a sound and growing use of credit in the forestry field.

It is not the function of this committee to discuss in detail the content of an adequate forest program for the nation. That is a problem which has been under study and implementation by the United States Forest Service, the State foresters, and the industry for many years. The principal objective here under consideration has already been implied.

It is, in brief, to propose a mechanism whereby more adequate low-cost credit can be made available for constructive forestry. The effective use of credit for improving forest practice will depend in large part on the extent to which technical aid and guidance are made available to forest owners.

FEDERAL ACTION NEEDED AND TIMELY

Conditions Favorable for Initiating Forest Credit Program

This is an appropriate time for the Federal Government to initiate an adequate and comprehensive credit program for forestry. The need for an increased flow of capital into forestry is apparent. Private lenders are not equipped to handle a program of the type needed and seem unlikely to initiate one. Money is relatively easy and conditions favorable for a period of development in which a forest credit system could become soundly established without the complications of a major crisis in the industry. There is a growing public awareness of the problem and an increasing interest among forest-land owners and the producers and consumers of forest products. Under these conditions a federally sponsored forest credit system could develop well-considered policies and procedures, establish its connection with the money market, and gain experience.2/ It should also be a means of developing loan arrangements suitable for later adoption by private lenders, thus increasing both public and private lending in connection with forest operations.

Here, as in the land bank system, it seems very possible that a well-worked-out procedure developed by Federal agencies may set up a pattern of finance that can be safely and profitably adopted by private agencies such as life insurance companies and other long-term lenders. Thus, a federally sponsored forest credit system may widen the scope of safe and constructive lending much beyond its own program of lending. This is important since the forest lands provide one of the large fields for constructive use of additional capital and the United States seems likely to continue to have large volumes of savings seeking useful outlets.

Importance of Well-Established Credit Facilities If a Depression Should Occur

The forest credit system proposed in succeeding sections of this report is designed primarily to provide continuous long-term financing in times

2/ There are three principal classes of forest-land owners to whom credit should be made available: namely, the relatively large commercial operators, the owners of small timber tracts not in farms, and farm owners whose farms include acreages in timber or suited for growing timber. The discusssion in this section relates principally to credit facilities needed by commercial operators, usually with fairly substantial acreages of timber. The needs and problems of the owners of small timber holdings and of farm woodlots are discussed in a later section. (For a more detailed statement of the acreages in different sizes and types of holding see Appendix A.).

of normal business activity. It should not be overlooked, however, that such a credit system would be an important means of safeguarding the industry in the event a serious depression should occur.[3] The land bank system with its related agencies, though established for more normal lending, proved one of the major stabilizing influences in agriculture during the middle thirties. At a time when private capital was being drawn out of agriculture at an alarming rate the land banks, with the aid of the Federal Farm Mortgage Corporation, were able to channel vast amounts of credit into agriculture to replace that withdrawn by private credit agencies and individuals.

These measures, probably more than any others taken by the Government, operated to prevent a complete collapse in the farm land market and undoubtedly saved hundreds of thousands of farmers from bankruptcy and the loss of their farms. While this creation of credit, which is a proper function of Government in times of severe depression, proved a lifesaver to great numbers of farmers it did not result in any significant loss to the Government. The land banks as a whole are in a better position than before the depression and the Federal Farm Mortgage Corporation loans are for the most part in healthy condition. It is true, of course, that this condition is due in part to the unusually favorable farm incomes resulting from the war. However, the regional agricultural credit corporations performed a somewhat similar function in creating new credit during the early thirties and had cleared up most of their loans before the war started. Yet they were able to handle the operation with very little loss. In other words, Government credit thrown in in times of crisis to replace private credit withdrawn can, if well-handled, prevent enormous losses in the industry without significant net cost to the Government.

This stand-by arrangement with respect to farm loans has proved its worth and should be maintained at least to the extent of providing a safeguard in the event of a major recession in agricultural incomes and serious financial distress in the farm areas. For forest properties, no similar arrangement exists at the present time.

It is of the utmost importance that any forest credit agency set up have a chance to get its organization developed, its policies established, and its personnel trained during an initial period when the demands on it are likely to be of modest proportions. The Federal land bank system could not have performed the service it did in the 1930's if it had not had the preceding years of experience and development in which to work out appraisal methods, educate farmers in regard to the loan plan, and learn the problems and pitfalls of such lending while operating on a modest scale.

When the huge increase in loan demand came in 1933 and 1934, some districts had to increase their appraisal staffs from as few as seven

[3] Private lending agencies are not dependable sources of credit when severe depression occurs because they usually must strive to make their assets more liquid in such times. Thus, the full measure of need for stand-by credit is not apparent when money is easy.

or eight appraisers to as many as four or five hundred in a few months. While this expansion placed a tremendous strain on the system and appraisals had to be handled by men with less than adequate experience, the task would have been well-nigh impossible had it not been for the small nucleus of trained appraisers already available and the support and guidance afforded by established policies, considerable experience, and a substantial amount of research on the earning abilities and prospects of various types of land.

Such a period of development and experimentation will be even more essential in the forest credit field, since there is less precedent to go on. Policies will need to be developed and basic information for making appraisals will have to be brought together and organized. The industry would be in a far safer position in the event of a major recession if an adequate organization could be developed in the years immediately ahead than if emergency measures should have to be undertaken when a crisis has already developed.

LEGISLATION FOR CREATION OF FOREST CREDIT FACILITIES INTRODUCED IN SEVERAL RECENT CONGRESSES

For a number of years past, proposals for the creation of a federally sponsored system of forest credit have been under consideration. Legislation looking to this end was introduced at various times from 1935 onward. The most fully developed legislative proposals were presented in the Fletcher bill (S. 3417, 74th Congress, 1st Session, 1935), the McNary and Pierce bills (S. 1136 and H. R. 3458, 77th Congress, 1st Session, 1941, and S. 47, 78th Congress, 1st Session, 1943), the Bankhead bill (S. 2043, 77th Congress, 1st Session, 1941).[4] More recently, the Hook bill (H. R. 6221, 79th Congress, 2nd Session, 1946) includes provision for a Forest Credit Bank.[5]

The committee has undertaken to profit by these earlier discussions and also to draw on the experience and judgment of men in the industry and of farmers concerned with forest operations. It has sought to outline a plan that will keep organization as simple as possible, require a minimum of overhead expense, and provide considerable flexibility so that the credit system can be adapted realistically to the great variety of conditions existing in the forest land areas of the United States. It feels that the forest credit system should not be patterned too closely upon credit arrangements designed for other purposes, but should be planned specifically to meet the needs of constructive forestry in which the growth period of the crop is long, the holdings vary from very small ones to very large ones, and the problems of processing and marketing differ from those of other types of agriculture.

4/ The proposals in the Bankhead bill are identical with those in the Pierce bill.

5/ Proposals for the establishment of a Forest Credit Bank (or banks) were also made in the Copeland report, Senate Doc. 12, 73rd Congress (1933), pp. 1125-1134, and the report of the Interbureau Coordinating Committee (1940). These earlier legislative proposals are summarized more fully in Appendix B.

Previous proposals envisaged one or another of the following arrangements for providing credit on forest properties: (1) a single national forest credit bank, (2) a series of regional forest credit banks, (3) the handling of forest loans through the land banks, and (4) broadening the powers of the Federal Farm Mortgage Corporation so that it alone could serve this purpose.

This Committee's recommendation consists of a combination of proposals 1 and 3 above, plus some use of the Federal Farm Mortgage Corporation along lines very similar to its functions with respect to farm loans.6/ It would establish a single national Forest Credit Bank designed primarily to provide credit to commercial forest operators, especially those in areas where forestry is the dominant industry. The Bank would also provide special types of loans related to forest operations in other areas and might make forest loans in any area where its facilities appear best adapted for meeting the credit need. In general, however, the committee's recommendation contemplates a program in which the land banks, the Federal Farm Mortgage Corporation, and the production credit associations with suitable modifications of policy, procedures, and legal authority, would meet most of the needs for forest credit in areas where forestry and farming are more generally in combination. The reasons for these recommendations are presented in the sections in which they are discussed.

PROPOSED PLAN OF ORGANIZATION FOR A FOREST CREDIT BANK

Capitalization and Scope

The Forest Credit Bank here proposed would be established in a manner similar to that used in capitalizing the Federal intermediate credit banks.7/

6/ In the event the Federal Farm Mortgage Corporation could not serve as here proposed, other arrangements would be needed. See footnote 10, page 13.

7/ Consideration has also been given to the possibility of setting up the Bank in such a way as to provide for borrower participation in the ownership of it with eventual full ownership and control by the borrowers. This is more difficult in a bank of this kind than in the Federal land banks because of the wide diversity in types of borrowers, their widely scattered locations, and the difficulties of setting up mechanisms for intelligent selection of directors in a national agency where the likelihood of candidates for directorships being widely known to borrowers is remote. The committee is of the opinion that majority sentiment among prospective borrowers would not be for direct participation in ownership and management for the reasons mentioned and others. For example, the management of a corporation of this kind requires frequent meetings of the board. These are difficult to arrange when some of the board members must travel long distances to attend meetings. An advisory committee, on the other hand, can keep in reasonably close touch with policy on the basis of quarterly meetings. For the reasons mentioned above, this committee suggests that the means of maintaining continuous (Footnote 7 continued on page 9.)

It is proposed that the Bank be established with a revolving capital fund of $100,000,000, with authorization to issue bonds and make loans up to 10 times the capital and surplus. While it is customary to authorize the issuance of bonds up to 10 times the capital and surplus, it is seldom found practical or desirable to do so. A more usual ratio is four to six times the capital and surplus. It is unlikely that the Bank would need actually to call capital in this amount in the early years of its operation. Nevertheless, the authorization of capital in liberal amount would facilitate bond sales and make for obtaining funds at the lowest possible rate of interest without increasing the actual drain on the Treasury since a considerable part of the revolving capital fund would probably not be called.

The Bank would have regional branches established at such places as might be determined by its board of directors and advisory committee in light of needed services, prospective volumes of loans, and so on. It would also have authority to enter into agreements with Federal land banks, banks for cooperatives, Federal intermediate credit banks, or other Federal credit agencies, whereby in some areas its loans would be made and serviced by these agencies with suitable compensation for services rendered. It would have power to borrow from, loan to, or act as fiscal agent for other Government corporations, banks, etc.

Organization of Regional Branches

The regional branches would have authority to make loans within certain limits (to be determined by the board of directors) and under regulations specified by the Bank, without referral to the head office of the Bank. Loans exceeding these limits or in special categories designated by the Bank would require specific approval by the appropriate officers or the governing board of the Bank.

(Footnote 7 continued from page 8.)
contact with borrower viewpoints and wishes be through national and regional advisory committees, rather than through stock ownership and the more usual corporate procedures. The alternative here proposed is more fully discussed in a later section.

Should it be considered desirable to have borrowers participate in ownership and management, this might be accomplished by issuing to borrowers memberships at a nominal uniform fee or capital stock of nominal value and the accumulation through the margining charge hereafter described, of a capital fund for the Bank, this fund to be represented by revolving certificates of participation issued to borrowers in accordance with their respective contributions to the margining fund. In that event, provision should be made for election of some of the members of the board by the borrowing members, such representation to increase as the extent of borrower participation in capitalization increases. If this is done, specified board members should be elected by particular classes of borrowers as is now done in the district boards of the Farm Credit Administration. For the early years of operation, the major portion of the Bank's capital would inevitably be owned by the Government and the major voting strength in the board should consist of officially appointed Government personnel. (This alternative plan of organization is discussed more fully in Appendix C.)

The regional branches would also have authority to establish and supervise local offices where these are considered desirable in the interest of adequate service to borrowers and effective supervision of loans. Such local offices would have authority to receive loan applications, to arrange for appraisals, and to provide such educational and supervisory services as may be specified by the central bank or the regional branches.[8]

Appraisals would be made by appraisers having special qualifications for appraising forest properties, these to be appointed and compensated by the Farm Credit Administration in the same manner as are its land bank appraisers. This would not preclude the maintenance of a continuously employed staff of forest appraisers in any given regional branch, though their appointments and compensation would stem from the appraisal section of the Farm Credit Administration in the same manner as those of the land bank appraisers.

Supervision and Management

The Forest Credit Bank would be under the supervision of a deputy governor of the Farm Credit Administration. The deputy governor in charge of the Forest Credit Division would supervise under the general direction of the Governor the whole program of forestry credit, except such phases as might be regularly assigned to the land banks as a phase of the farm loan system. His office would also handle liaison with the Forest Service, the Extension Service, the Farm Security Administration, other parts of the Farm Credit Administration, the State foresters, and with other branches of the Department of Agriculture.

In view of this wide range of responsibility for liaison and policy-making, it is recommended that the deputy governor for forest credit not be expected to serve also as president of the Forest Credit Bank after the volume of business becomes substantial. Instead, he would serve as chairman of the board. The other members of the board would be the Governor of the Farm Credit Administration, the Chief of the United States Forest Service, the Secretaries of Agriculture and the Treasury, or representatives designated by them, and the commissioners in charge of the land banks and the intermediate credit banks. Under this board the Bank would have a president, a vice-president, and the usual type of corporate staff. Such offices as that of deputy governor for forest credit and president of the Forest Credit Bank might, however, be combined in the same person at the discretion of the board. This probably would be desirable in the early stages while volume of loans is small. The deputy

[8] These recommendations are made with a view to keeping the overhead cost of the system at a minimum and giving the organization a maximum of flexibility to meet different conditions. Loans would probably be in small volume at first and demand might be limited to certain regions or areas. Adequate organization could thus be provided where needed without setting up elaborate staffs or corporate organizations in places where the demand for loans might not be sufficient to carry them. For the same reason, the committee recommends against definite blocking off of the country into a specified number of regions. Regional branches should be established where needed and omitted where not needed.

governor for the forest credit would be appointed in the same manner as other deputy governors in the Farm Credit Administration.

The governing board of the Forest Credit Bank, as proposed, would consist entirely of government people. This plan is suggested in part because the capital and some of the loan funds would be provided through congressional appropriation and hence should be under the control of the executive branch of the Government, and partly to avoid a board of unwieldy size, also, as stated above, to provide a board that could meet frequently enough to transact the business of the Bank. There would be need for orderly coordination of the bank's operations with those of the Treasury, other branches of the Department of Agriculture, and other divisions of the Farm Credit Administration. Provision is therefore made for representation of these agencies and units in the governing board of the Forest Credit Bank. Executive management of the Bank would, of course, rest largely with the chairman of the board and president of the Bank, or the combined officer if the two offices are held by one man.

Advisory Committees

In order that the loan program be kept realistically in line with the needs and views of the borrowers, it is suggested that there be an advisory committee or board consisting of one member from each region in which a regional branch is established plus three members appointed to represent the general public, the members to be appointed by the President of the United States on nomination by the Governor of the Farm Credit Administration. The nominations 9/ would be made from panels of not less than three names proposed by the borrowers in the regions concerned, such nominations to be submitted by the regional advisory committees hereafter proposed. In making nominations, the Governor would be directed to give due consideration to representation of the different types and classes of borrowers. The public representatives would be chosen on the basis of broad knowledge of forestry and credit problems and recognized standing as representatives of the public interest in constructive forest development and management.

Until such time as regional branches have been set up and their advisory committees are in a position to make nominations as outlined above, the national advisory committee would consist of seven members to be nominated by the Governor of the Farm Credit Administration, four to be forest-land owners of recognized standing in their respective classes of ownership and three to represent the public as indicated above.

For each regional branch, a similar advisory committee consisting of five elected and two appointed members would be established. The five elected members would hold office through election by the borrowers along lines substantially similar to those now provided for election of the elected members of district boards of directors in the Farm Credit Administration. The plan of selection should give appropriate recognition to the different classes of borrowers represented in the bank's loans in the region. The

9/ Of all members of the advisory committee except those appointed to represent the general public.

other two members of the regional advisory boards would be appointed by the Governor of the Farm Credit Administration as representatives of the public interest. Until such time as sufficient loans have been made in the region to make practical the election of the elected members of the advisory committee by the borrowers, the advisory committee would consist of seven members appointed by the Governor, five of them to be forest property owners eligible to apply for loans.

The regional advisory boards would meet quarterly or oftener as they might determine. The executive officer in charge of the regional branch of the Forest Credit Bank would be an ex-officio member of the regional advisory committee, but the committee would select its own chairman and might meet in executive session if it so desires. The committee members would be paid travel expenses and a reasonable compensation and would have authorization for secretarial services and to request reports and special studies where these are deemed necessary by the committee. Its main functions would be consultative and advisory but it would be authorized, at its discretion, to make reports and recommendations to the deputy governor in charge of the forest credit, to the Governor, or to the national advisory committee on forest credit.

In like manner the national advisory committee would be provided with travel expense, compensation, and secretarial facilities. It would likewise have authorization to request reports and special studies at its discretion, and to make recommendations to the deputy governor, the Governor, the President, the Congress, or to other officials such as the United States Forester of the Secretary of Agriculture.

Terms of office for members of the national and regional advisory committee would be 3 years, these to be arranged on a staggered basis.

Committee for Consultation with Other Federal Agencies

Since an adequate and effective forest credit program depends heavily upon the activities and educational work of a number of other Federal agencies, it is recommended that there be set up a governmental advisory or consultative committee consisting of representatives of other Federal agencies concerned with forestry problems. This would include such agencies as the Forest Service, the Soil Conservation Service, the Agricultural Extension Service, the Field Service Branch of the Production and Marketing Administration, the Farm Security Administration, and others. Members of this committee would be appointed by the heads of the agencies concerned, ordinarily on a year-to-year basis. The committee should meet quarterly or oftener and would be concerned mainly with the development of a coordinated program for forest credit and related programs for forest improvement. It would consider appropriate divisions of labor, credit needs, means of improving the forest phase of the work in each of the agencies as it relates to credit problems, and would counsel with the Forest Credit Bank representatives on policies with respect to forestry loans. The committee would be set up on invitation by the Governor of the Farm Credit Administration and the deputy governor in charge of forest credit would serve as chairman of it.

Source of Funds for Forestry Loans

Mortgage Credit. - The Forest Credit Bank would obtain mortgage funds through sale of long-term bonds based on first-mortgage forestry loans in a manner similar to that already well-established in the land bank system. These would be designed for sale in the open market, but the Federal Farm Mortgage Corporation or some other appropriate agency of the Federal Government, would be authorized to purchase them until such time as they can be established in the money market and at such times as the money market is not prepared to absorb them on a reasonable basis. This provision is identical with the existing functions of the Federal Farm Mortgage Corporation with respect to land bank bonds and would merely extend the operation to forest bank bonds, thus assuring an outlet for the bonds of the Forest Credit Bank until its securities can become known and gain acceptance in the open market. This arrangement would also provide a market for the bonds at times when the size of bond issue needed is not sufficient to warrant a direct approach to the money market. Second-mortgage loans, if made, would be made with the Forest Credit Bank as agent for the Federal Farm Mortgage Credit Bank, as is now done in the case of the Federal land banks.[10]

Operating and Intermediate Credit. - Shorter-term forestry credit of the banking type would normally be supplied through the Federal intermediate credit banks on notes discounted by the regional branches of the Forest Credit Bank or by the Forest Credit Bank itself under arrangements similar to those used by the farm production credit associations.[11] That is, the regional branch of the Forest Credit Bank itself would serve in a capacity similar to that of the production credit associations in making farm production loans and discounting them with the intermediate credit banks. The source of funds for discounted loans would in each case be the intermediate credit banks. Many loans of this type would be suitable for commercial bank lending and in many cases would be so handled. This is likewise true of farm production loans. As in the farm production credit field, it is likely that the initiation of a more constructive

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10/ If the facilities of the Federal Farm Mortgage Corporation should not be available for this purpose, other specific provision would need to be made. The committee regards the Federal Farm Mortgage Corporation as particularly well-suited for this type of function, however, not only with respect to forest credit bonds but for land bank bonds as well.

11/ Provision should be made, however, whereby the Forest Credit Bank might at its discretion sell its own debentures. This would be comparable to the existing arrangement under which the Central Bank for Cooperatives may discount its loans with the intermediate credit banks or go into the money market with its own debentures as it may choose.

This would probably require some legislative changes in the kinds and sizes of loans the Federal intermediate credit banks are authorized to make. It might also require joint participation in some of the larger loans by two or more of the Federal intermediate credit banks. Authorization to issue special forest credit debentures may also be needed.

program of short-term loans for forestry by the Federal agencies would result in improved practices and more suitable lending arrangements on the part of commercial banks.

Since this procedure would require basing part of the debentures of the Federal intermediate credit banks on forestry loans instead of farm production loans, there might be need for a separate series of forest loan debentures. While this type of security should eventually be fully as good as that based on crops and livestock, it may be somewhat less liquid and investors would at first be unfamiliar with it. Also, lending of this kind will require some experimenting at first. Because of these factors such paper, if used as backing for the established series of intermediate credit bank debentures, might decrease their acceptability in the market. If this should be the case, and if at first the debentures based on forestry loans should not find ready sale, some provision should be made for absorption of such debentures at reasonable rates of interest until a market for them can be established. This might be through purchase by the Federal Farm Mortgage Corporation or by the Reconstruction Finance Corporation, or through provision of a revolving fund appropriated by the Congress, or through purchase by the Federal reserve banks.

It is likely that the demand for such loans would develop only gradually and that no very large amounts would be required in the early years. The volume might be small enough so the Federal intermediate credit banks could make these loans out of surplus or might be able to handle them under their established debenture series. If so, the problem would not arise.

Types of Loans Contemplated

First-Mortgage Loans. - These would be for refinancing existing indebtedness, restocking open lands and holding immature timber, orderly utilization of mature timber including carry-over in times of low demand, implementing plans for sustained-yield management, purchases to round out units, transfers of ownership, and development of roads, trails, and firebreaks. Mortgage loans would also be needed for purchase or building of facilities such as telephone lines, lookout towers, logging camps, logging railroads, etc.

On lands primarily used or to be used for forestry, the security for the loan would be a first mortgage on the lands and timber so designed as to permit flexibility in harvesting the timber under an agreed plan of operation. Authorization should be granted for less rigid programs of repayment than those applying to farm lands. A growing stand of timber is normally increasing in value from year to year until it reaches full production and operation under an orderly plan of cutting. Thus, the security back of the loan is increasing, assuming adequate fire protection and suitable arrangements for insurance. This is not so likely to be true of an ordinary farm. Buildings may be running down, orchards deteriorating, soil condition declining, and so on. Hence, there is more reason to require early and fairly regular repayment of loans on farms and since the products of a farm are sold annually the means for repayment are normally in hand.

On many forest properties the income for repayment of principal may come only at 5-year, 10-year, or even longer periods, even though the property is being well-managed and the security for the loan may be entirely adequate. The plan of repayment should, of course, contemplate substantial payments on principal when harvestings are made, but a requirement only for payment of interest at other times if the property is being managed in accordance with the agreement. The borrower may, of course, wish to repay at earlier dates from other sources of income and should be permitted to do so.

The plan suggested above implies authorization for the Bank to forgo payments on principal for a considerable period after the loan is made, especially if the forest property requires a good deal of rehabilitation and building up.

It is suggested that the Bank be authorized but not required to make loans extending up to 60 years. There appears to be no important reason from the creditor's standpoint for requiring rapid repayment of principal so long as the value of the resource is increasing, as it should be under a constructive management program. Forest loans in countries which have provided such loans for some time, e.g., Norway, Germany, and Denmark, usually call for repayment over a period of 40 to 60 years. In the German Landschaften, through the process of reloaning the loans may, from a practical standpoint, be virtually perpetual loans if the borrower chooses to handle them that way.

The permissible waiting period before beginning payments on principal should be determined by the Forest Credit Bank on the basis of the character of the forest land and growing stock, and should be fairly lengthy if substantial improvement and development of the forest is necessary to bring it into well-managed condition. Where virgin timber is to be harvested there should, of course, be provision for an accelerated repayment program.

In essence, these proposals amount to legislative authorization for establishing a variety of repayment schedules, each tailored to the specific management and development program agreed on between the credit agency and the borrower. Loans would be conditioned on an approved written working plan and would be callable in the event of unauthorized and substantial deviations from the agreed program.

It is the view of this committee that authorization could safely be granted for making first-mortgage loans up to 50 percent of the normal value of the property and that this percentage might in due time be raised. In the beginning it would seem advisable to hold loans to a conservative basis, since appraisal experience and policies must be developed, a new type of bond must be made known, and the loan, though probably at least as safe as those on farms, would be based on a less liquid type of property. The Bank would need to loan carefully until

appraisal methods are developed and the results of various types of working plans have been weighed.[12]

Second-Mortgage Loans. - In order to provide funds for the refinancing of outstanding indebtedness, for the acquisition and development of forest properties, and for other purposes, it will be desirable to authorize second mortgages of the commissioner-loan type for amounts sufficient to bring the total loan up to not more than 75 percent of normal value, the first-mortgage loan being made by the Forest Credit Bank and of funds derived from the sale of bonds as in the case of the land banks. This would make it possible in some cases to prevent drastic liquidation of holdings too heavily mortgaged to qualify under the first-mortgage limitations suggested above, yet under heavy pressure to liquidate existing loans. If such a second-mortgage plan is provided, the loan funds should come from the Federal Farm Mortgage Corporation or from an appropriate revolving fund, rather than from the direct sale of bonds. The first-mortgage bonds should be based on loans so conservative that they can bring funds into the system at rates of interest comparable to those on Government bonds. The provision of second-mortgage loans on the basis suggested above would require some broadening of the loaning authority of the Federal Farm Mortgage Corporation if that is the agency used. This should include not only authority to make such loans but authority to make loans to corporations and authority for making second-mortgage loans on forest properties in amounts larger than the present limit of $7,500 which applies to second mortgages on farms.

Loans for development, as for example the building of roads, housing, etc., would usually be for shorter periods than those indicated above but probably would require a longer period for amortization than the usual kind of intermediate-term loan on farms. They would probably need to be

12/ The committee has considered suggestions for making the upper limit of loans the same as that on farm loans supplied by the land banks, namely, 65 percent. The more conservative limit is suggested because of certain factors pertaining to forest loans that are less significant in the case of farm loans. Among these are the inability to get certain types of insurance, the fact that some of the loans will be larger and less liquid than farm loans, and there is at present less experience to go on than in the farm loan field. Also, the fact that the forest-land owner often does not live on the land covered by the loan introduces an element of hazard not usual in farm loans. It is emphasized, however, that the values here contemplated are "normal" values; that is, values based on the prospective earning power of the property, not current market values. Stands with high prospective yields may, however, have little currently salable timber and thus may not find ready sale to operators desiring timber for immediate cutting. It is recognized that some borrowers will need loans amounting to more than 50 percent of normal value. The committee feels, however, that the industry will be best served by using conservative loan limits for first-mortgage loans used as backing for Forest Credit Bank bonds and supplementing these where warranted with second-mortgage loans of the commissioner type. If second-mortgage loans are not to be made available, consideration should be given to raising the limit on first-mortgage loans to 65 percent of normal value.

based upon real-estate mortgages. The flexibility of arrangements suggested above would, however, make possible loans suited to conditions of that kind, in some cases implying loans of 5 to 10 years' duration.

It is suggested that a minimum of $250 be established for both first- and second-mortgage loans.

Equipment, Operating, and Other Short-Term and Intermediate-Type Loans

Loans are needed for the purchase of equipment such as trucks, tractors, graders, bulldozers, loaders, locomotives, cars, and mill machinery and also for meeting payrolls, subsisting workers, and carrying stocks of lumber.13/

For established commercial lumber operators, especially those of medium and larger sizes, such loans are usually available through commercial banks since the turnover is relatively fast and there is an immediately salable product to use as security.

The principal purposes in securing loans of this kind through the Forest Credit Bank would be, from the borrower's standpoint, that funds might be available to him at lower rates of interest and for longer terms than through the commercial banks. Also, he might have more freedom to produce for stock-piling, thus keeping his labor and equipment more fully employed.

From the standpoint of the Forest Credit Bank, the advantages in making loans of this kind available would lie partly in economy of supervising a full line of credit for production and harvesting, somewhat better protection of any underlying mortgage loans on the forest lands, and the possibility of exerting a more effective influence in the direction of a more orderly and constructive forest program. For example, loans would not be made to implement facilities or production programs in excess of the capacity of the area under a reasonable and constructive cutting program.

For some equipment on which the appropriate period of amortization may be fairly long, as for example forest railroads, locomotives, cars, mills, etc., the security may take the form of a mortgage on the forest lands, and be handled as a regular mortgage loan. The Bank should have authority, however, to make a variety of loans of this type ranging in terms from as low as 6 months to as high as 5 or 10 years. This is in keeping with the general principal stated earlier that the Bank should be in a position to work out a loan program suited to the specific needs and repayment possibilities of the forest enterprise concerned.

Loans of this kind would not be suitable as security for the regular Forest Credit Bank bonds based on first mortgages on forest lands. They should, as soon as policies, procedure, and experience are well-established,

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13/ Funds for making loans of this kind through the Forest Credit Bank would be obtained in one or more of the following ways: By discounting with the Federal intermediate credit banks, by direct sale of debentures by the Forest Credit Bank, or by use of a revolving fund appropriated by the Congress.

be suitable backing for Forest Credit Bank debentures of shorter term than its bonds, though possibly of longer term than regular intermediate credit bank debentures which might be used in case it is found advisable to finance through direct sale of Forest Credit Bank debentures rather than through the intermediate credit banks.

For the early years of Forest Credit Bank operation there should be a source of funds for loans of this kind, either through an assured outlet for debentures as, for example, through the Federal Farm Mortgage Corporation or an appropriated revolving fund designed for eventual repayment to the Government when direct channels for securing funds from the money market have been established.

Method of Margining Loans

The traditional method of providing a margin of security to the holders of bonds both in private corporations and in the Federal farm loan system is through an arrangement for the issue and purchase of common stock, either by private investors or by borrowers. This plan has not worked well in the land bank system. Many borrowers and prospective borrowers have objected to the requirement for purchase of stock in the amount of five percent of the loan. While many have done so, there is considerable evidence that the land bank program would have got under way more quickly had it not been necessary to purchase stock in order to borrow. The original legislation setting up the land banks provided also for a five percent additional liability. It was found virtually impossible to collect this once a national farm loan association was in difficulty. This double liability feature was eliminated in the Farm Credit Act of 1933.

More serious, however, was the fact that in the event of losses chargeable to the association, reimbursement out of the capital stock fund (usually necessary because few associations had substantial reserves) resulted in impairment of capital and made the association ineligible to make new loans. Thus, if the capital stock was actually used to absorb losses, the association was put out of business so far as new loans were concerned, and if it was not so used it became a virtually useless reserve fund of value only as added protection to the bondholders in the event of liquidation of the system. Similar difficulties existed in handling the capital of the land banks though in less acute form since they more generally were in a position to build up reserves.

A further objection to the capital stock plan as used in the land banks is that impairments of the capital fund of an association, unless dividends have been paid rather regularly, are not reflected back immediately to the borrower. The impairment will become evident only when he finishes paying off the loan and fails to receive the full value of his stock. This may be after many years and lax practices may have been permitted to go unchecked in the meantime. The borrower has some tendency to look upon such a stock subscription as a fee charged for granting the loan.

On the other hand, a margin taken annually to cover current losses in the system and rebated if not needed makes the borrower immediately aware

of losses or delinquencies in current payments. Such a fund can be used up completely without impairing the ability of the organization to make new loans.

It is suggested, therefore, that in lieu of a borrower margin provided through purchase of capital stock there be made on each payment of interest on each loan a small charge to cover losses that may arise as a result of delinquencies and bad loans. This is similar in principal to the insurance fund arrangement in the Federal Housing Administration but, as here proposed, would be more selective.

The amount of this additional charge would need ultimately to be based upon the loss experience and if uniform should be large enough to cover the losses on the highest-risk classes of loans, with rebates to borrowers in the lower-risk loan classifications. These charges would be paid into a special fund in the Forest Credit Bank to be used only in repaying losses suffered on loan operations or for rebates to borrowers when the fund has been built to adequate size.14/ It would not be for meeting fire losses or other physical risks but specifically for covering credit risks of the type usually margined by capital stock in private financial organizations.

When the fund has been built up to a size deemed adequate by the directors of the Bank.15/ any excess above losses incurred would be paid back to the borrowers as a refund on the interest payment of the preceding year. The capital stock of the Bank would be adequate to meet any such losses occurring before an adequate insurance fund has been built up. Credit losses would not be likely to appear in significant volume in the early years of operation.

14/ It is suggested that this fund be a reserve rather than a revolving fund; that is, that there would not be specific individual rights of ownership in it. Rebates when made would go to all borrowers of a given class regardless of the time over which contributions had been made. This would simplify administration and for long-term loans probably would work out to about the same net cost to any given borrower for his share in carrying the risks on his class of loan.

15/ It is likely the Congress would wish to specify the size considered "adequate" for this purpose in terms either of a percentage of the Bank's capital or of its outstanding loans. In the opinion of this committee, a reserve amounting to 10 percent of loans outstanding would be a suitable minimum requirement. Until the reserve reaches this level, no rebates might be made. Thereafter, net gains in the reserve fund might be rebated to borrowers or added to the reserve in whole or in part as may be determined by the directors. Since the size of the margin collected would be subject to determination by the directors, a specific directive as to percentage of net to be transferred to reserve would not be meaningful. The board should have authority to establish separate reserves for different classes of loans and should be directed to follow a conservative policy in maintaining and adding to reserves.

If it is found that loss ratios tend to vary consistently by classes of loans or by regions, the insurance fund would be classified accordingly and each class of loans or region would be charged with the losses pertaining to it. Thus there would be differentials in the amounts charged or in the rebates made corresponding to the credit losses incurred on the different classes of loans.

The plan for a credit-risk insurance fund outlined above would therefore accomplish the purposes that might otherwise be served by the use of a capital-stock plan and would be much less cumbersome. Through its quick reflection of losses upon the rebates to borrowers it would focus attention on defects of management much sooner than would be done through a deterioration in book value of stock. It would also remove an important obstacle to the taking of loans, namely, the requirement otherwise necessary that each borrower purchase stock to the extent of five percent of his loan.

The hazards which may result in failure to meet commitments are of three general types:

1. Natural hazards such as fire, insects, disease, etc., which may destroy, in part, the credit base. Separate insurance arrangements with respect to hazards of this type are discussed in a succeeding section.

2. Risks arising out of the personal affairs and integrity of the individual borrower. These would be covered by the insurance fund proposed above.

3. Risks and delinquencies resulting from changes in price level and general business conditions. These might be expected to affect mainly the ability of the borrower to maintain current interest payments rather than ultimate repayment of principal. The long-time nature of the forest industry is such that failure to harvest growth at a specified time would not result in deterioration of the security if it is kept under good management. Both harvesting and repayment schedules could be deferred until conditions are more favorable. The basic security, namely, the trees should be continuing to increase physically in the meantime. The principal problem would be in maintaining interest payments. A credit insurance fund of adequate size should make possible the carrying of some delinquency in times of moderate business recession. In the event of a major and prolonged depression such as that of the 1930's, it might be necessary to consider providing special funds to permit deferment of some interest payments until times improve, as was done in the farm loan system in the 1930's.

Appraisals and Management Plans

The public interest in checking the rapid destruction of forests and getting all potentially productive forest lands into full use has long been recognized. Vast areas have been brought into or continued in public ownership as a means to this end. Large amounts of money have been spent

by the Federal Government in study and experimentation on ways to improve woodland management and increase production. To bring good forest practice into wide use on private forest lands will require not only credit arrangements that will make good management possible but a considerable amount of educational and demonstration work as well. The recommendations presented here relate only to those types of educational and service work that should be directly integrated with the loaning operations.

It is apparent that loans of the kinds suggested will require appraisal and cruising of the lands involved and also competently devised plans for production, cutting, restocking, etc., over a considerable period of years. An acceptable management plan should be a prerequisite for the making of a loan. For the program to be effective it is imperative that the terms of the loans be attractive to forest land owners, that money be channeled into the industry at the lowest practical rate of interest, and that the proposed guidance to producers be both available to them and acceptable.

Because of this, recommendation was made above that the loans on which Forest Credit Bank bonds are based be of such a nature as to assure a flow of funds into the industry at very low rates of interest and that, through good management, the insurance charges to cover both credit risks and natural hazards be kept at as low a level as possible.16/ These risks are inherent in making loans, however, and cannot be eliminated. They can be minimized by careful lending and by a constantly improving program of fire control. To forgo assessing them against the borrower would lessen the incentive for careful lending and better protection against natural hazards and might open the way for pressures on the agency to loan too freely in high-risk areas or to high-risk types of borrowers. It is proposed, therefore, that the borrowers be expected to carry these basic costs, namely, rental on money, credit risk, and risk from natural hazards even though public values as well as private values are expected to flow from such lending.

On the other hand, a loan program of the kind here outlined if widely used would result in very important advantages to the public. Among these are increased production of timber, watershed protection, soil conservation, added scenic beauties, improved recreation facilities, better control of fires, and decreased tax delinquency. Because of this, there is warrant for putting in some funds from the public treasury to make the program workable and attractive to borrowers.

In part, this public aid would appear in the use of the capital funds of the Bank. It is recommended that, in addition, the cost of cruising and appraisal and the working out of forest plans on the smaller properties

16/ Since in the first years of operation a cost of money is not likely to be established through sale of bonds in the open market, the initial interest rate might well be established on a basis comparable to the base rate used by the land banks; that is, a rate similar to that charged by the land banks less the margin accruing to the land banks since it is proposed that the administrative expense of Forest Credit Bank operations be borne by the public.

be carried at public expense through appropriations made for that purpose, and that the general administrative expense of the Bank be borne in a similar way.

Appraisal, cruising, and planning costs, if assessed individually on small loan operations, tend to raise the total costs of the loans to the borrowers to levels likely to prevent wide use of the plan. This, in turn, because of the wide scatter of the loans actually made, would tend to make their servicing and supervision unnecessarily expensive, thus defeating both the main purposes of the program and the efforts to economize. The success and effectiveness of the program depends upon bringing into it large numbers of scattered ownerships and making them part of a voluntary, cooperative, and comprehensive plan for forest improvement and protection.

For the larger holdings the providing of cruises, appraisal, and planning without cost is less necessary. Most of them have cruises of their own which can be spot checked and many have working plans prepared by professional foresters. These in many cases can be accepted after review and possibly some modification. It is suggested, therefore, that cruises and planning for properties in excess of certain minimum sizes to be determined by the Bank or by Congressional action be on a compensable basis through fees adequate to cover the average cost.

The arrangements suggested above would provide partial compensation for the public gains to be expected but would not create an artificial rate of interest in the strictly credit phases of the operation. At the same time money would be brought into the industry at the lowest possible rate consistent with self-support for the operation, aside from its administrative, educational, and demonstrational aspects. The public advantages to be derived from the program should more than offset the modest cost suggested. Without aid of this kind, or some other, it seems unlikely that interest rates can be kept low enough to achieve the ends sought. On the other hand, such a plan as that suggested seems less likely to disturb normal loaning relationships than would a direct subsidy in interest rates.

The Farm-Forestry Program of the Forest Service and Its Relation to the Credit Program

Under the program for management assistance to woodland owners set up under the Norris-Doxey Act of May 28, 1937, and others, provision was made for giving on-the-ground technical aid, education, and counsel to individual small forest-land owners and small mill operators. Under this program, the United States Forest Service enters into cooperative projects with State forestry agencies in which the facilities of the State foresters are used to the maximum extent that they are able to participate. At present there are two types of such projects:

1. A forester is assigned to a specific group of counties to work with land owners in estimating, marking, and marketing timber on individual forest tracts. There are 156 of these projects covering about 40 million acres (a total of 261 million acres

need such services). When State agencies put up 50 percent of the project cost in cash or kind, the State agency supervises the project. In those instances where at present the State agency is able to furnish only offsets to meet Federal cooperation, the projects are federally directed. Under the proposed expansion of this work, 149 new area projects covering about 600 counties would be started in 24 States where additional cooperation has been offered.

2. Foresters are assigned to State and regional headquarters of the Federal and State forest services, some to fill requests for forest management assistance where service is not available locally, a few as higher grade specialists to get larger land owners interested and started toward employment of their own foresters, and a very few as specialists in small forest industries. At the present time there are only 16 men employed for all types of jobs included in this second group. Under the proposed expansion, approximately 104 regional and State staff assistants would be employed in 36 States to help fill in gaps not covered by the area projects and to make a start on providing technical assistance to operators of small forest industries throughout these States.

The present program plus the expanded program recommended by the Forest Service will provide forestry services in about 1,200 of the 2,050 counties needing these services. Including the State staff assistants, there would be an average of about 10 technical foresters per State in 40 States. Each man can help about 100 land owners a year, a total of about 40,000 a year. There are 4,000,000 small owners. It is obvious that even this expanded program falls far short of being adequate.

The woodland management technicians will work with individual land owners. It will be necessary to visit each tract, look it over, analyze the possibilities for an immediate timber sale, outline a brief plan of management, mark trees to be cut, estimate timber volumes, help the owner draw up a simple sale agreement, provide a list of possible purchasers, and help the land owner to obtain proposals, usually return to check the cutting practices, and show the land owner the next step to take in getting his woodland under productive management. On the average, not more than 3 days can be spent on any one property; to help 100 owners a year, less than 3 days must be spent on many properties. The land owner is required to work with the forester and some instruction is given him, but obviously he won't become a technical forester in 2 or 3 days. Nevertheless, the next service trip usually can be shortened.

If the land owner can afford to pay for these services, he is put in touch with a private forester if one is available. Consultants are encouraged to establish themselves in project areas so that services on a fee basis will be available to land owners who can pay. Most of these small properties are in such poor condition that they will not support the services of a paid consultant at the present time.

The staff specialists on small industries will help operators to produce more and higher quality products, improve lay-out of equipment for efficient performance, inform them of equipment-saving devices and practices, promote cooperative marketing, work with them in cutting marked timber, and overcome their objections by showing that marked timber yields higher grade products at less cost and more production per man hour.17/

17/ The reasons for providing this service, as outlined by the Forest Service, are as follows:

(1) The small holdings are in the least productive condition. A survey of all sizes of private holdings just completed shows that no provision is made for future timber crops in the methods used in more than two-thirds of the present cutting. A substantial proportion of the present cutting on large holdings is done in a way that will promote continuous forest production but only about 4 percent of the acreage in small holdings is managed for continuous production. Because small owners have the bulk of the privately owned forest land, there can be no large improvement in the private forestry until more small land owners adopt better forest practices.

(2) Individual assistance is needed because no two forest tracts are alike. With most agricultural crops the farmer starts with bare ground and grows a crop in less than 1 year. With forest crops, the land owner starts with whatever is on the land now and to get a crop every few years must keep the land in forest for many years. Most of the privately owned forests have been cut over at least once. Less than half of the total acreage now has operable stands of saw timber, and much of this consists of small trees, low-quality timber, and low-value species. Every acre has a different set of conditions. Every owner has a different set of problems to solve in managing his small forest. There are no general rules applicable to all acres and to all owners. There is only one way to write a prescription for an individual owner and that is to go and see his particular forest property and to start with what he actually has.

(3) Technical assistance is needed because only a very few land owners possess the skills needed. The large amount of small-holding acreage now in unproductive condition is evidence that the necessary skills are not being applied now. The average small land owner can acquire these skills in time by working on his own property with technical supervision and assistance. For the immediate future, however, practically all of the know-how will have to be provided.

(4) Public assistance is needed because there are only a few dozen consulting foresters practicing in the whole country and most of these find it unprofitable to work on small tracts. Moreover, most (practically all) small land owners have to be convinced that tree growing is worth the time and effort. Not until they have been started and have some proof of this on their own lands are many of them willing to pay for technical help. As a direct result of public assistance, the larger forest land owners now employ more than 500 foresters. The small land owner cannot afford a full-time forester; most of the smallest land owners never will

(Footnote 17 continued on page 25)

The type of service provided and contemplated under the farm-forestry program, together with that available on a paid basis from private consulting foresters, should provide most of the technical aid needed by nonborrowers in the areas served under this program. For prospective borrowers the plans thus worked out will not ordinarily be sufficiently detailed and complete to serve as a basis for a loan. They should, however, be a means of providing a preliminary estimate as to whether a loan could be used to advantage and whether the enterprise would be eligible for a loan. Where such an estimate appears to warrant it, the prospective borrower would be advised as to how to proceed in making specific application for a loan. From there on, the more detailed appraisal and development of a working plan would be handled by the technically trained appraisers of the credit agency in cooperation with the borrower, together with such counsel and aid as the farm-forestry representative might be able to give.

Since many of the small forest holdings are held and operated in association with farming or other activities, the working plans devised would need, in these cases, to take account of the economic enterprise as a whole and would often require working out a plan for the combined farm and forest enterprise. Usually the farm-forestry representative would not have either the time or training for this type of analysis. The credit agency appraisers would need to have appropriate training and experience for doing this combined type of appraisal and analysis. Both agencies should, of course, have the active cooperation of local agricultural extension and soil conservation workers, particularly in stimulating interest in constructive forestry, arranging for meetings of forest owners and operators with the appropriate representatives of the forest services and the credit agencies, and conducting such educational and follow-up work as is within their technical competence.

(Footnote 17 continued from page 24)
be able to employ even part-time technical assistance. Perhaps 20 years hence about half of the small forest land owners will rely on private foresters for part-time technical services but for the critical years immediately ahead, if public agencies do not provide such services, there will be none available.

(5) Precisely the same reasoning holds for operators of small sawmills and other small forest industries. For example: 97 percent of our 39,000 active sawmills are small, most of them very small; yet they produce half of all lumber cut in this country. In the East, 75 percent of the lumber is produced by mills cutting less than 5 million board feet a year, 40 percent by very small mills cutting less than 1 million feet a year. The large mill operators are banded together in associations and have facilities for exchanging or acquiring up-to-date technical information. The bulk of these small mill operators are not members of organized associations and doubtless never will be. They do not have access to technical information resulting from public research. More than half of the tree is wasted in manufacture because technical knowledge and assistance is lacking. The Timber Production War Project (under W.P.B. auspices) proved in 2 years of operation that response of small operators to on-the-ground technical assistance was immediate and effective.

This combined program would be the appropriate and desirable one wherever the farm-forestry program is in operation. The credit agencies will, however, have a wider coverage than the farm-forestry program since the latter will naturally be confined to areas in which the acreage of forest lands is rather substantial and will not, even under the expanded program now recommended, cover anything like all of the areas needing such service. In many areas where technical counsel is not available under the farm-forestry program, there will be sufficient demand for forest loans to warrant maintenance of technically qualified forest appraisers capable of aiding in working out production plans such as those described above. Since a good many forest owners needing technical counsel will not need loans, question will undoubtedly arise as to whether the services of these appraisers should be made available to nonborrowers on a fee basis. It is probable that the more limited and general service that can be provided by extension foresters and the State and Federal forest services will meet the major part of this need. Where private forest consulting service is available, it will usually serve adequately for needed noncredit appraisals as in the settlement of estates and so on. Policy with respect to handling appraisals and giving technical assistance for nonborrowers will presumably be the same throughout the Farm Credit Administration but should be on a basis of mutually acceptable working agreements where other agencies and private consultants are engaged in this type of work. If undertaken by credit agency personnel in areas not served by other agencies or by private consultants, such work should be only incidental to the credit operations and a means of filling in unused time on the part of credit agency appraisers and technicians.

Loans to Forestry Cooperatives, Individuals, and Small Corporations for Facilities, Operating Capital, and the Carrying of Inventories

The loans previously described relate primarily to established commercial forestry operations and to a type of security that should rather quickly become established on a self-supporting banking basis. Comparatively little technical aid and close supervision would be needed. This is in contrast to the conditions surrounding the establishment of small mills by cooperatives and individuals in communities not now served, as discussed in the following paragraph. In those cases, a longer period of guidance and development would be needed, the loans would be less suitable as backing for marketable debentures, and more reliance would have to be placed on appropriated funds. As already stated, however, it is unlikely that the demand for such loans would be large, and the funds needed would be modest in amount. Yet the potential values arising from some experimental lending along these lines might be of considerable importance in the long-term development of a comprehensive forest improvement program. Such lending, if undertaken, should for the present be regarded as of the experimental or "pilot-plant" type. The underlying principle is not markedly different from that already accepted by the Congress in establishing on a much larger scale in the farm field the Agricultural Marketing Act revolving fund for development of farm cooperatives. Although this program was not successful as first set up under the Federal Farm Board, it is working well under the policies and procedures now in effect.

Many localities lack sawmills and other processing facilities needed in providing a market for the timber that is or might be produced. As a result, there is little incentive for land owners in such areas to practice constructive, sustained-yield forestry and such trees as are harvested are likely to be used for firewood or other low-grade uses even though suited for higher types of use if markets were available. Where small-scale milling facilities are available, they are all too often of the "gypsy" type concerned only with cutting out all marketable timber and moving on. Even where itinerant mills are available, many of the small ones are very inefficient and wasteful.

It is of the utmost importance in creating a sound, continuing forest industry especially in areas where the holdings are small that there be developed adequate and relatively permanent processing facilities which do not deplete the surrounding timber reserves at rates greater than their growth rates.

Loans are needed in many areas for providing facilities and operating capital of this kind. In some communities, cooperative associations designed for this purpose will best meet the need. In others, the service may be provided most effectively by individuals while in other situations loans may be needed by small corporations. The major consideration is not the form of the business enterprise but that the service be made available and the plan of operation make possible and encourage sound, continuous forest production. Both the lending and educational activities can contribute to that end whether through cooperative or private channels.

Loans for these purposes should be supplied from funds available to the Forest Credit Bank, but if made to cooperative associations in some cases may be best administered through the regional bank for cooperatives acting as agent for the Forest Credit Bank. The authority for making loans of this kind should be so stated as to permit loans through the regional branches of the Forest Credit Bank through the banks for cooperatives or through other agencies, as may be found most practical in each situation. Usually, the special knowledge and contacts in the regional branch of the Forest Credit Bank would seem to make it the most practical medium for making such loans, especially if to individuals or corporations.

To implement a lending program of this kind, there should be available to the Forest Credit Bank a special fund appropriated by the Congress. In the present stage of forestry development in the United States such loans could not well be used as backing for Forest Credit Bank bonds and probably would not be suitable as backing for debentures of other types. Eventually, when such processing industries become well-established, they may well be suited for financing by means of capital derived from the sale of bonds. The fund required for initiating loans of this kind would not need to be large but should allow for some experimentation in methods of meeting this need. The opening up of a continuous market is a vital necessity for inducing constructive forestry in many areas, and the stabilizing and improving of the milling facilities constitutes a major problem in preventing destructive "fly-by-night" types of cutting.

In initiating projects of this kind there will be need for adequate technical guidance which can best be supplied by the Federal and State forest services. In some cases grants-in-aid may be needed. If so, these should be made through the Forest Service and supplemented by loans made on a banking basis by the Forest Credit Bank. The credit operations appear better suited to a credit institution with its specialized experience in this field but undertakings of this kind should be in close collaboration with the forest services and may in some cases be handled best by delegating supervision of the loan to Forest Service personnel.

In making loans to milling, marketing, and processing concerns, presumably those of small size, the Forest Credit Bank should have authority to make facility loans, operating loans, and loans on inventory and to make these to cooperatives, individuals, or corporations (using other agencies of the Farm Credit Administration or specialists in the Forest Service where that is mutually agreeable). When enterprises of this kind have become well-established, operating and inventory loans, if adequate in amount and diversity, might later be handled through discount with the Federal intermediate banks.

Insurance Against Fire and Other Physical Hazards

It is recommended that there be established in conjunction with the Forest Credit Bank, a Forest Insurance Corporation capitalized by the Government and managed by the same board of directors as the Forest Credit Bank and with the same advisory committee. This would meet a long-felt need and one which for reasons stated below seems unlikely to be filled by private insurance corporations. Since insurance against fire hazards would clearly be the first type to be undertaken, the following comments pertain principally to fire risk. Similar principles would apply, however, in considering other types of physical hazard.

In most areas the hazard of loss by fire is one of the most important single factors which may make it impossible for a borrower to meet his commitments on loans and to carry out an agreed forestry program.18/ It is essential, therefore, in the interest of sound loaning that provision be

18/ Other losses such as those from windfall, insects, and diseases probably amount to more in total than those from fire. With the exception of windfall losses, however, they tend to be more widely diffused and less severe on a given property. It is to be expected that as forest management is improved, insect and disease losses will be lessened to some extent by more prompt harvesting of insect- and disease-infested trees and more general removal of old-growth trees when they become mature. Windfall losses are not preventable as are most fire losses, and as a practical matter will probably have to be covered in the general credit risks. Better organization of the industry will, of course, facilitate prompt salvage of windfall timber and lessen the losses incurred as a result of hurricane damage. The Forest Insurance Corporation should, however, be authorized to write insurance on other types of natural hazards if and when adequate actuarial data are available. It should at the earliest practical time initiate studies designed to provide actuarial data for additional types of risk, such as those from insect infestation, disease, and wind losses.

made for covering losses of this kind. This is a risk which the forest land owner carries regardless of whether he borrows. Consequently, a fire insurance charge made in addition to the interest and credit risk cost of the loan does not constitute an added cost of securing funds. The fire risk cost exists regardless of whether it is spread through insurance.

The bank, as a lender, is concerned only with such fire loss to a borrower as will impair his ability to meet his commitments on his loan. In some cases rather substantial fire losses might occur without jeopardizing the loan itself. On the other hand, as a public agency set up specifically to improve and encourage forest production the Bank would be concerned with the whole problem of minimizing losses from forest fires and making forest lands attractive as an investment outlet for private funds. The latter objective cannot be achieved merely by protecting the Bank against losses on its own loans.

The risk of loss from fire varies greatly from area to area. It is affected by the amount and distribution of rainfall, by the age of stand, by levels of humidity and temperature, by topography, by proximity to railroads and highways, by the extent of recreational use and the attitudes of local people, by the kind and amount of fire protection provided, and various other factors. The public has already given evidence of a substantial interest in the control of forest fires. Considerable expenditures are made annually by Federal, State, and local governments and by private owners to prevent and control forest fires.

A comprehensive arrangement for providing forest fire insurance based on variable premiums related to the loss rates experienced could be expected to stimulate interest in fire control and increase timber-owned cooperation looking to reducing such losses. If these losses can be reduced, loans can be made with more assurance and the reserve for losses on loans can be smaller. Considerable public gains will accrue as well. The cost of insurance can also be kept down by exempting losses amounting to less than a specified percentage of the face of the policy.

It is evident that fire losses are at present so high in some areas that loans could not be made nor could fire insurance be written. In such localities both the provision of credit and the writing of insurance will have to await better organization for fire protection and a more developed public interest in fire control. It will be necessary that the Forest Credit Bank and the State and Federal forest services institute vigorous measures for improved fire protection as a means of making possible an adequate program of forest credit and forest fire insurance.

A corporation writing fire insurance will have to start operations in areas where risks are moderate, protection well-developed, and basic data on losses fairly adequate. As it gains experience and actuarial data and as more adequate fire control is developed, its operations can be extended to additional areas and classes of risks. Considerable variation in premium rates will be necessary and in some cases rates should be varied on given properties over time since, in some regions at least, the danger of loss is much greater in new growth than in mature timber.

The establishment of an insurance rate structure will be a very complex problem and will require a good deal of experimentation. It is partly for this reason that comprehensive coverage has not been undertaken by private insurance companies. Furthermore, since losses may at times be large it is important that the risk be spread widely, preferably on a Nation-wide basis. Variable premium rates related to the risks incurred will create a strong incentive for woodland owner cooperation in organizing for fire protection and in encouraging public action and cooperation to this end. In some areas fire loss has been reduced to very modest amounts by these means.

In places where fire losses seldom are serious and where protection is good, the lending agency may be able to absorb the risk of loss from fire in its ordinary credit operations and will not need to require fire insurance. This should be left to the discretion of the lending agency. In other areas it will not be feasible to make loans until fire losses are reduced to a level where insurance can be written.

It is clear that the creation of an adequate forest fire insurance program is not a simple matter. The classification of risks, the development of standards for appraising losses, and the educational work needed for reducing fire loss all will require study and experimentation. There is, however, considerable work already under way in this field and much help can be counted upon from the Federal and State forest services and from local agencies and individuals. Nevertheless, it is recognized that the initial development of such a system will have to be undertaken gradually and it will be some years before comprehensive service can be expected. It is a field in which private insurance seems unlikely to develop on an adequate scale, partly because of the large initial outlay required and partly because the selling methods customarily used by private insurance companies and the high rates likely to be charged in an untried field would raise the cost to levels prohibitive for most forest land owners.

Capitalization and Organization of the Forest Fire Insurance Corporation

It is suggested that the authorized capital of the Forest Fire Insurance Corporation be $10,000,000, of which at least $5,000,000 would be paid in at the time of organization. The directors, which would be the same as those of the Forest Credit Bank, would select the officers of the insurance corporation as in the case of the Bank. During the period when both institutions are relatively small, some of the officers might be the same for both in order that cost may be kept at a minimum.

The income from the capital, plus such fees as may be charged, would constitute the operating income of the corporation. If such income is not adequate for making the necessary preliminary studies and covering general organizational expense, additional capital should be called. The premiums paid to the corporation on insurance policies would be invested and carried in a reserve account for payment of claims arising from losses by fire. Thus, in the early period of operation, the cost of administration

would be covered by the income from the invested capital and from fees while all of the premiums collected would be set aside for meeting losses.

At first the premiums charged will have to be based upon available studies and estimates, plus such additional ones as may be undertaken by the corporation. If over a period of years it is found that premium rates charged are higher or lower than necessary for a given class of properties or area, adjustments can made administratively by lowering or raising rates.

It will be necessary that the Government advance a reserve fund to absorb any large losses that may occur in the first years of operation before the reserve fund has been built up. As the reserve fund becomes adequate to carry the risk, the funds advanced to the reserve by the Government should be repaid. Thereafter, the corporation would operate with only such amount of subsidy as would exist in the provision of its capital.

Eligibility to Purchase Insurance

While the insurance corporation would be created primarily to supplement the operations of the Forest Credit Bank, it is suggested that it be authorized to write insurance for any owner or operator of forest lands, individual or corporate, who meets the qualifications prescribed by the corporation. Thus, other forest owners who may wish to be insured in order to protect their own investments or who obtain financing from other lenders that require forest fire insurance as a condition of making their loans would be eligible to apply for insurance coverage. The Forest Credit Bank would require the carrying of insurance by borrowers obtaining loans from it.[19] This requirement might be waived by the officers of the bank in areas where the danger of fire is very small.

PLACE OF SPECIALIZED AND NONSPECIALIZED CREDIT AGENCIES IN SUPPLYING FOREST CREDIT

Credit on Forest Lands Not in Farms

The specialized forest credit agencies proposed in this report look primarily to serving the forest owners whose forest lands are not in combination with farm lands. In many cases, these holdings are larger than those associated with farms and tend to be located in areas where forests predominate over farm lands. Many of them have a corporate form of organization. Loans needed by them will usually be larger than those needed by farm woodland operators and of a different character. But, as pointed out earlier, there are also very large acreages that are in small nonfarm holdings. The importance of this type of forest land is likely to increase in the future. Most of this acreage is not now being managed in such a way as to maximize its contribution either to the Nation's supply of forest products or to the incomes of the owners.

19/ This would not necessarily imply taking insurance from the corporation here proposed. Appropriate insurance written by private companies, if approved by the Bank, might be accepted in lieu of that written by the Forest Fire Insurance Corporation.

The Forest Credit Bank should, therefore, have authority for making forest loans under a wide variety of conditions including some in areas where farming may be important as well as forestry. The reason for this is that not all land banks and local associations will want to make loans of this kind or will not have suitable personnel for doing so. Furthermore, the land banks cannot loan to corporations and may not be able to make loans that are large enough to meet the needs of some timber owners in farm areas. Where Forest Credit Bank funds are used the Bank should have authority to operate either through established farm credit agencies or its own branches and locals as may appear most efficient and economical and best in accord with the mutual desires of the agencies concerned.

Where a branch of the Forest Credit Bank has been established, loans on properties wholly in forest or where forest products provide the dominant source of income should normally be obtained through the Forest Credit Bank. Where significant amounts of farming are combined with forest operations, application should first be submitted to the land bank. If declared ineligible by reason of the amount of woodland, application should then be made to the Forest Credit Bank. Relations between the two agencies, where they operate in the same territory, should be made in terms of well-defined memoranda of understanding since interest rates on loans through the Forest Credit Bank may be lower than those of the land banks, while the size of loan obtainable on this type of security may be larger on borrowings through the land banks. The Forest Credit Bank is likely, on the other hand, to be able to give more technical aid to the borrowing forest-land owner than will the land bank.

Credit for Farmers With Woodlands

Owners of farm woodlots are likely in most cases to prefer the land bank loan with its less rigorous supervision of forest operations. The feasibility of this latter arrangement is already being demonstrated by the Columbia and New Orleans Federal Land Banks. Such a program should be extended to other areas and should be further developed in the districts where a start has already been made. Adequate service to the owners of farm forest lands through the land banks, the banks for cooperatives, and the production credit associations will, however, require some changes in policy and regulations and possibly some modifications in the legal authorizations under which these units operate. In the main, the credit facilities are available and can provide a very constructive aid in improving forest operations on farms and on small timber holdings in farming areas. There is need, however, for more positive directives in the law which will specify fuller use of the authorization these agencies now have for making forestry loans.

The Forest Credit Bank described above could conceivably be expected to supply the kinds of forest credit needed by the three million or more farmers who have some woodland on their farms. But if it were to do so it would need a large number of branch offices. In fact, to serve these owners as well as they are now served with land bank and PCA agricultural loans there would be needed in the two thousand timbered counties in the United States perhaps half as many forest credit offices as there are now local farm loan and production credit associations. Even with a

considerable number of branch offices there would still be a considerable number of nonfarm small holdings in areas not within reach of branches of the Forest Credit Bank. A central bank with a limited number of regional branches and outlying offices could reach all of the timberland owners with sizable tracts but something much more than this would be needed to bring credit within reach of all of the four million or more owners of small tracts on farms and not on farms.

Instead of proposing that such a network of small offices be set up, it seems wise to examine all the possibilities for using the existing network of farm loan and production credit associations now making real estate and chattel loans to farmers. The methods of operation in the production credit associations would seem at first glance to be well-adapted to the needs of timber production. Trees are a crop the same as wheat or cotton. A schedule of disbursements adjusted to the periods when the expenditures need to be made could be worked out and a schedule of subsequent repayments, just as with the PCA loans. These disbursements could finance improvement cuttings, weedings, thinnings, pruning, and even a certain amount of planting of interspersed sites not naturally restocking.

If the PCA's were to provide such credit, however, they would need to change their method of financing their loans. They could not raise all of the funds for them by their present method of selling short-term debentures. Loans for periods not longer than 5 years, made in fact only for a year but with the provision for their annual renewal, would be as long as would be feasible with present methods of financing. Five-year loans used to finance timberland operations could finance improvement cuttings and thinnings but little else and these only in case enough timber product resulted to redeem the loans, except as the farming operations on combined farming and woodland enterprises might yield the necessary income.

This latter exception, however, is an important one. Many of the farmers with woodlands need no credit whatever in order to make the improvement cuttings and the like that their woodlands require and many others need no more credit than they can repay from their current farming operations. The main obstacles to their making the woodland improvements necessary are that they have had no experience in this kind of farming and little realization of its possibilities. The idea of borrowing money to improve farm woodlands would startle the majority of the farmers and small woodland owners in this country. The problem in such cases is one of education.

Once these owners get the idea of managing their woodlands and their woodlands are examined from the standpoint of investments required, it will be found that some of them, in certain regions especially, need loans that they cannot repay in 5 years out of current incomes from farm products and timber sales. The production credit associations perhaps should now be making regular 3- to 5-year intermediate farm loans to finance purchase of breeding stock, machinery and equipment, and the like, in place of the annual loans with promise of renewal. To do this they would need longer-term debentures, as well as those of shorter terms now used. If such longer-term debentures were in use, it would be a simple matter to provide forest production loans running for 5 years or more. Unless they do adopt

such a program, however, it would seem best not to handle loans on small timberland holdings as production credit except in case the farming operations or improvement cuttings and the like will repay the loan within a few years.

The foregoing conclusions point to the next one; that most of the loans on farm woodlands for periods of more than a few years should be made as real estate loans. As such, they would be made to run for any period need up to a maximum of 60 years or even more in special cases, as provided above for the larger loans made by the Forest Credit Bank. They could carry interest at the same rates as regular farm loans and be financed by the same sales of land bank bonds. The local farm loan associations could function with respect to them in the same way as they do with farm loans.

The major difference is that such loans will have an irregular schedule of repayment fitted to the periods when cuttings yielding a net return are made. In a southern yellow pine area, the repayments might begin in 2 years and recur at 6-year intervals for 32 years. Such a schedule on a small tract of even-aged, old-field white pine in the northern forests might call for thinning and improvement cuttings at intervals of 5 to 10 years with full-scale cutting deferred in some cases for 40 years or more. On a stand of northern hardwood following old-field pine, repayments might need to be deferred for 25 years or more. The usual farm woodlot consists, however, of mixed species of different ages and would provide a basis for more frequent payments. Here even the improvement cuttings are likely to provide some income.

Another major difference is that the disbursements or advances to the borrower should not be made all at one time, but as needed. On the stand of northern hardwoods an advance might be needed at once to cover a weeding operation and another in 15 years for the same purpose. The first thinning might not cover the cutting expenses. One of the main purposes of such loans is to enable the small owner to defer cutting until the timber is at an optimum stage of growth. Loans are needed in some cases to provide living expenses for the owner while working on the woodland and developing it to the stage where it is ready for harvesting.

The farm mortgage loans now made do not provide for such a schedule of disbursements but could be made to do so. The St. Louis Federal Reserve Bank has recently issued a pamphlet describing a loan for land improvements that calls for a reappraisal of the farm and stepping up of the mortgage as the improvements are made.[20] This procedure could be adopted by the land banks.

Probably a simpler procedure would be to carry the loan to cover woodland development as a second mortgage with a schedule of disbursements and repayments fitted to the particular stand and the plans for its development. Reappraisal of the property would not then be needed

20/ Darryl R. Francis, "Bank Credit for Soil Conservation", Federal Reserve Bank of St. Louis, St. Louis, Mo.

following each improvement operation. The mortgage could be stepped up automatically as the improvements are made, according to a schedule arranged in advance. The loan values assigned to these improvements would need to be limited to some fraction -- say 60 percent -- of the labor and other expenses entering into them.

This procedure would be especially convenient in case the farm is already carrying a land bank loan. The writing of the second mortgage to finance the timber improvement would not affect adversely the security of the first mortgage nor interfere with the annual amortization payments. If the farm carries a mortgage held by another party, refinancing of the first mortgage by the land bank might prove to be necessary or at least desirable from the standpoint of the land bank.

The foregoing has assumed that annual interest payments will be made on such loans. On many northern woodlands this, along with the taxes, may entail more of a burden than the woodland owners can face, especially the owners of small tracts not in farms. One solution is to make loans to such an owner annually to cover his interest and taxes and probably insurance, or a considerable part of them. This would amount in effect, it is true, to deferment of interest but it would be put upon a regular basis and would not be open to some of the objections to deferment of interest.

It should be obvious that any loans made for improvement should be based upon a definitely worked out plan for managing the woodland. Such a plan is necessary before the schedule of disbursements and repayments can be laid out. The problem of making such plans is discussed under a later heading. At this point, however, one important clarification is needed. The disbursements can be based only on actual cash outlays on the woodlands, or in case the owner does much of the work himself they can include an allowance for this labor. In the second case, the owner would in effect receive loan advances proportionate to his labor and the use of his team andequipment that would support his family while at work on his own farm, or perhaps finance the purchase of needed livestock or equipment.

Many farm families are much in need of such income while in the process of improving and developing their farms. Not having it, they seek off-the-farm work or grow a small acreage of some intensive labor-consuming crop, like potatoes, that gives them a cash income. It would be better on many farms if this labor were used in increasing the productivity of the farm. The plan for land improvement credit proposed by the St. Louis Federal Reserve Bank includes in effect an allowance for the labor done by the farmer. All work done is value at "contract prices." It would seem best in the case of woodlands to permit either including such an allowance or not, depending upon the special circumstances and the wishes of the borrower. Many will be able to finance everything except the cash outlays and will want to keep the loan at as low a figure as possible.

If allowances for labor are included, the advance based upon the work done should be only a fraction -- not over 60 percent -- of the labor expended. A simple method of appraising the improvements is to specify in advance in the woodland plans a definite number of days of labor for each operation

and to multiply this by the prevailing wage rates on farms or woodlands in the area. Under this procedure, the owners would know the amounts of the loan before they undertook the work. Another method, or course, is simply to appraise the value of the improvements after they are made.

It should now be apparent that credit advanced in this way has important possibilities of usefulness under two sets of special circumstances. One of these is in areas having a surplus of available labor on farms locally and a good deal of woodland needing development. This description fits large areas in the Appalachians and in the South. It would be highly desirable for this labor to be put at work increasing the productivity of these areas.

The other situation is in a period of depression, such as in 1930-40, and especially 1930-33, when rural work-relief is needed. The more employment at such times that can be furnished on the basis of credit rather than direct appropriations, the better for all concerned.

The making of loans to buy woodland or additional woodland can be fitted into the foregoing very well. The farms needing to increase their volumes of business and income by adding woodland will need in most cases to improve the timber on this land. They will need a loan for this fully as much as for the purchase. The loan advances can in many cases include the labor done on such land as well asthe cash outlays involved. In depression, it will be good management even to buy additional land so as to obtain additional employment on one's own property, or to assist farmers to buy and improve such woodland as a way of providing work in the community.

Credit thus made available may assist many farmers to expand too small farms into economic units - into a farm, let us say, of 40 acres of tillable land and 100 acres or more of woodland with perhaps 20 acres of improved pasture. This farm will provide fuller employment for the farmer and his family helpers and in due time a much improved income. At the same time, the waste woodland of the area will gradually be mostly abosrbed into farms already in the area and the productivity of the area importantly increased.21/

CREDIT AND RECONVERSION

Even before the Second World War considerable of the agriculture of the United States had not yet become adjusted to changed economic conditions. These maladjustments had existed so long that the groups suffering from them had eventually forced the Government into granting subsidies which had for one of their effects the continuation of the very maladjustments that made existing incomes low. It will be apparent in the foregoing that credit can be used in such a way as to increase current resources for family living and induce needed adjustments at the same time.

21/ The above comments pertain especially to forest lands requiring considerable rehabilitation and building up. Many prospective borrowers, especially in the South, will have timberlands that can yield a fairly consistent income almost from the time the loan is made.

To take the cotton-growing areas of the South as the most obvious example, loans can be made; to improve pastures and buy dairy and other cattle and increase the incomes from livestock; to establish fields of kudzu and sericia for forage to increase the land in farms so as to provide the acreages needed for pasture and forage; to improve woodland and buy additional woodland as above explained; to establish terraces, grassed waterways, diversion ditches, and strip-cropping layouts to check erosion; to buy the grass seed, lime, and fertilizer needed for several of these types of improvements; to build barns for cattle and poultry houses; and finally, and highly important, to buy farm machinery needed to work larger acreages with less labor and thus increase farm incomes. The more of these types of improvements and readjustments that can be made to pay for themselves through being financed as sound loans, even though a considerable period of years may be required for some of them, the better for the farm families themselves as well as for the public in general.

Subsidies and Credit

No matter how carefully planned and serviced, however, credit alone will not suffice for a sizable acreage of timberland or potential timberland in the United States which is now held in private ownership. This is land which left to itself, or handled in the usual way, will not restock itself with a good stand of trees or in some cases is restocking itself very slowly. For such land some form of subsidy is likely to be needed along with credit.

One type of such land is hardwood which has been cut for fuelwood when partly grown and is now producing only trees from stump sprouts, of little or no value except for another poor crop of fuelwood. This description fits a large acreage of land in the Northeast. If the present crop of stump sprouts can be thinned a little, later thinned by an improvement cutting when it reaches the cordwood stage, and the rest left to develop into old trees these latter will do little sprouting when they are cut and a stand of hardwood developed from seedlings will gradually take over. Farmers who can fit in the necessary thinnings of stump sprouts and later improvement cutting with work on their crops and livestock at times when the regular farm work is not pressing such as before the heavy snows in the late fall or in the late winter can frequently use their labor as profitably at this work as at any other available at these periods.

But much of this land was never in farms, or is no longer in farms, or is in larger tracts than farmers can handle with labor left over after caring for their livestock in the late fall and winter. If the labor required to convert such sprout growths into good timber stands has to be hired, or if labor must be hired to plant trees and weed out the gray birch, poplar, and other weed species that presently crowd them out if not checked, the investment is likely to run higher than subsequent crops of trees will repay.

The easy solution of this difficulty is to take such land into public ownership, or at least management, and let the Government bear the expense of getting good stands established. The public interest in having this done, as explained above, justifies this expense. Once these stands are

establised they will ordinarily yield enough income to repay subsequent outlays. If the cutting is distributed over a tract as small as 500 to a few thousand acres, enough can be cut each year to give a regular current income to offset current expenses. The problem is to finance the period of transition from present low productivity to later full productivity.

But, although public ownership and management is the easy solution, it may not be the cheapest or best. Careful consideration should be given to the possibilities of a combination of grants of public aid to cover some of the early expense involved and loans to cover the later expenses. Alternatives would be deferring interest payments or including a subsidy in the interest rates. These, of course, are forms of concealed subsidy. Direct open subsidies are to be preferred.

If subsidies are to be made anyway, like the AAA benefit and income deficiency payments, an excellent use of them will be in the form of grants accompanying woodland loans. Thus used, they can hasten greatly the conversion of the land to new uses and the development of new sources of income. If subsidies are offered as grants of this type, the families receiving them will in effect be increasing their productivity. The practice of paying subsidies in kind - as lime, fertilizer, grass seed, etc. - is already well-established. It needs only to be extended to labor used for land and timber improvements.22/

Provision of Such Credit by Private Banks

The foregoing discussion has assumed for the most part the provision of the forms of credit furnished by public lending agencies such as the PCA's and land banks. It is not necessary that it come from these sources. Private banks can handle many of these types of loans as readily and as safely as can public agencies. They should be encouraged in every way to do so. In fact, they should be given the first change at any such loans. The principal restraining influence, so for as ordinary commercial banks are concerned, is that they may not want to tie up their loan funds for as long periods as will often be required for timber-improvement operations.23/ They will be able to make many more loans in the pine regions of the South than in the hardwood regions and in the North.

Educational and Planning Services

More important than any direct subsidy in improving the forests and woodlands of this country and in using credit to promote it are the contributions that education can make, and especially the kind of education that takes the form of helping woodland owners to make plans for developing them. The place of education as it relates to forest credit was discussed on pp. 22-26. The problem is discussed here from

22/ Even this practice was followed by the FSA when it was making grants in its later years before the war.

23/ Other types of private lending agencies may in time find such loans attractive.

the standpoint of farm woodland owners. Generally speaking, the owners of timberland in this country know much less silviculture than they do agriculture. In fact, most of them have no silvicultural tradition whatever. If they have any lore at all about timber, it relates to the harvesting of trees rather than to growing them, - even to the destruction of forests rather than to building them. A tremendous task faces the educational agencies of this country, from the grade schools clear through to the universities, and especially the extension services. This education must awaken an interest in the practice of silviculture and forest management and develop a prideful interest in the growing of a good stand of trees like that of any good farmer in producing a good crop of cotton, tobacco, or corn.

This is not the occasion for any detailed discussion of educational methods. But one form of it relates closely to credit. No loan on a piece of timberland is safe unless it is based on a plan for the use of the capital advanced that has been tested out by estimating rates of growth and cuttings and stands left at different periods. Moreover, such analysis should not stop with merely working out with the farmer some one program that looks good to the forester and is acceptable to the owner. It should, whenever time permits, also include parallel analyses of alternative plans in order to discover the particular plan that will work out best in a particular situation. It is not enough that the loan be safe. It is important to the farmer as well as the lending agency to use the loan funds as effectively as possible.

The types of alternatives to test out are varied. For a farm woodland they include primarily the choices as to the form of land use that will pay best on a particular field or site, whether crop, permanent meadow, pasture, or woodland. They may include the choice between natural restocking and planting and between natural reproduction methods. On woodland holdings, they include not only reproduction methods but densities or permitted stands, thinnings and cuttings, species to favor, disease and fire control methods, whether or not to prune, the form in which to sell the timber, etc.

The other major question involved is how this education and planning is to be provided. The larger timberland owners will of course be expected to work out their own plans for the most part. The remarks following apply to the small owners. It could conceivably, at one extreme, all be furnished as a service of the loaning agency. At the other extreme, it could all be provided by foresters attached to the United States Forest Service or the State forester's offices, or to the State or county extension services. Probably some combination of these will be best. As the farm-forestry program becomes more fully developed it should be able to provide a large part of this service in cooperation with the local and State extension workers. An ideal arrangement would be for a professional forester to help the woodland owner develop a plan, including the schedule of advances to the owner and repayments, for the owner to present this to his local commercial bank for financing and if his bank is unable to handle it, to present it to the land bank in his territory - or PCA if a loan only for a few years is needed. The loaning agency should, of course, be free to suggest changes in the plan and schedule of payments and repayments.

This may call for remaking the plan. The loaning agency will need to do some inspecting of the woodlands to see that the plan is being carried out as planned, but with proper working relations between the cooperating services and the credit agency, the forester would visit the owner when he needs technical guidance and report what he finds to the loan agency and the inspector would inform the forester when help is needed that he cannot furnish.

It may seem that such aid to timberland owners imposes a heavier burden than the public will be able to finance. This surely would be true if all the owners who could use credit to advantage asked for it at once and needed to have the help repeated each year, but a woodland plan serves for a long period even though it may need some reviewing at intervals of a decade or two. Technical guidance will be needed only at times when a new type of operation is introduced. Furthermore, plans for small woodland tracts can be developed for groups of owners in the same neighborhood at one time. Group-wise farm planning, once its technique is mastered, is a great economizer of time and energy.

Also, as explained in another section, nonfarm woodland owners may form themselves into small local cooperatives and thus be able to collaborate very effectively with the forest services, the Extension Service, and other agencies in organizing the educational and planning work. They may also be able to hire technical assistance with their plans when public agencies cannot supply it because not enough public support has been made available.

As explained elsewhere, they may also be able to set up soil conservation districts that include the planning of farm woodland management as a base for loans as one of their activities, or to modify the programs of existing soil conservation districts in their areas to include such activity. The soil conservation plans now worked up for farms with woodlands in few cases carry through to the point of presenting a schedule of anticipated cash outlays and other inputs and accompanying repayments, over the whole period during which a loan needs to run; nor are they based on a comparison of alternative programs. These additions to their planning are needed anyway.

It should be apparent that a plan for a loan on a farm woodland cannot be divorced from the plan for the farming operations. The major alternatives to be weighed on such farms, as indicated above, are whether or not to convert particular fields into improved pastures by removing the brush and timber, or to fence them off and convert them into good stands of timber, or to let them remain as they are except perhaps for some brushing and fertilizing of the more open sites. Decisions as to which alternative is the most promising call for projecting the income from pasture and woodland use over longer periods than in the usual farm plan.

In many of the States, the State forest services are in a position to furnish some help in woodland planning. This help is likely to be on holdings ranging from 500 upwards to a few thousand acres. It cannot be expected to be extensive enough to reach the rank and file of small woodland owners but the more such services can be increased, the better.

THE RELATION OF FOREST CREDIT TO NATIONAL INCOME AND LEVELS OF EMPLOYMENT

The importance to the national economy of high levels of employment and national income has been widely discussed in other connections. There is general agreement that these are major considerations in the formulation of Government policy. Their attainment calls for stimulating activity in all of the major industries and for the development of new outlets for capital, new forms of employment, and new kinds of services.

This committee does not wish to overemphasize the role forestry can play in such a program nor to imply that it in itself is a means of preventing or overcoming economic depressions, but does wish to point out that increased investment and employment on the Nation's forest lands can provide an important stabilizing influence while contributing markedly to the future welfare of the country. This is particularly true for certain areas where forest potentialities are important and where unemployment and underemployment are common even in times of fairly high economic activity over the Nation as a whole.

If the rural areas are not to suffer seriously from overpopulation and low buying power, there must be for some time to come an annual movement of from 500,000 to 1,000,000 workers out of agricultural work into other lines. This condition of high population growth and underemployment in the rural areas is especially characteristic of the Southeastern States, and the Lake States, and some other areas where there are large and potentially profitable opportunities for forest land development under private ownership. In other areas, such as in the Pacific Coast States which contain the principal remaining stands of sawtimber, there are large possibilities for constructive use of additional manpower in forest operations.

The United States has become the major capital-surplus country of the world. Savings are tending to outrun the opportunities for investment and seem likely to continue to do so. Yet, in spite of the need and opportunity for investment in forest improvement and production, capital does not flow freely into that industry. This is in part due to the lack of adequate mechanisms for the transfer of capital from the owners of loan capital to those in a position to use it effectively in forest improvement. Savings are accumulated by people who are not in a position to make loans or invest money on specific forest properties or farms in remote areas and who could not afford the risk or supply the supervision needed in making specific individual loans. An adequately organized forest credit system such as that outlined in earlier sections of this report could provide a means of spreading risks, of making competent appraisals, and of providing adequate supervision of loans. This would bring about lower and more uniform rates of interest for borrowers, an increased outlet for loan funds, and in all probability and improvement in the methods used by private lenders.

Investment funds flowing into forestry over the next decade or 2 have a special advantage in that they will not immediately put a lot of new consumer goods on the market. It is to be expected that the intense demand for consumer goods now existing will result in very active production

and buying over the next few years, but as this period of hyperactivity slacks off, it will be especially important to stimulate outlets for capital and labor that will not result immediately in an increased flow of consumer goods. The output resulting from investments in forestry will, for the most part, be delayed from 10 to 25 years.

In addition to the more tangible forms of forest production the recreational product of forest areas seems destined to increase at a very rapid rate and will in itself provide opportunity for much investment and create an added demand for forest improvement and protection. Such investment and employment will contribute to economic stability while also providing an increasing and wholesome outlet for current spending.

The credit organization and policies discusssed in preceding pages are designed to encourage and make possible the accomplishment of these ends largely through private activity instead of leaving them unaccomplished or depending exclusively on direct governmental action for their attainment. While approaching the problem with this general view in mind, the committee does not wish in any way to deprecate the importance and desirability of public ownership and management of large areas of forest lands in situations where this appears to be the most effective and economical way of dealing with the problem. Forest production is a long-time process and in many areas, especially where considerable restocking is necessary or where important watershed controls or recreational opportunities are involved, public ownership may be the only procedure by which the public interest can best be served. There are, however, vast acreages of forest land not suited to public ownership because of their scattered locations, their combination with farming, or other reasons, where constructive forestry can come about only through private initiative and where the public will best be served by that means. To the extent that private forestry can be made adequate, the need for direct public management will be minimized. The industry is one, however, in which there is clearly a need for both public and private action to improve and conserve the basic resource.

ADDITIONAL AGENCIES AND MODIFICATIONS IN EXISTING AGENCIES NEEDED TO IMPLEMENT THE PROGRAM RECOMMENDED

Implementation of a program such as that here outlined would require the following new agencies and modifications in those now existing:

I. A Forest Credit Bank established as proposed, or along similar lines discussed in other proposals for accomplishing this purpose. (New agency.)

The Bank would have authority:

a. To make first-mortgage loans on forest lands.24/

24/ The lending authority of the Forest Credit Bank should be broad enough in each category to permit of making loans to individuals, corporations, cooperatives, and to public bodies, such as States, counties, municipalities, and conservation districts.

b. To make second-mortgage loans on forest lands.

c. To make loans for facilities, equipment, operation, and storage in connection with forestry operations.

d. To establish regional branches and local offices.

e. To set up a special appraisal and management planning service coordinated with that of the Federal land banks and with the work of the forest services.

f. To sell first-mortgage forest credit bonds either in the open market or to a designated Federal agency.

g. To sell forest credit debentures with maturities up to 5 years.

h. To receive and administer funds appropriated by the Congress for special types of credit operation related to forest development and for such related purposes as the Congress may specify.

i. To enter into contractual arrangements with other units of the Farm Credit Administration or other agencies for making, servicing, and supervising loans where such arrangement is mutually satisfactory and for other purposes.

j. To lend to or borrow from other credit agencies, including banks and trust companies.

k. To manage and dispose of land acquired under foreclosure.

II. A Federal Forest Insurance Corporation. (New agency.)

The Federal Forest Insurance Corporation would have authority to write insurance on forest properties, to classify risks other than credit risks for insurance purposes, to appraise and pay losses, and to rebate collections made in excess of the amounts needed to pay losses and maintain adequate reserves.

III. Modifications of the functions of the Federal Farm Mortgage Corporation.

If continued in its present form the Federal Farm Mortgage Corporation should be given additional authority:

a. To buy and sell first-mortgage bonds of the Forest Credit Bank.

b. To make, through the Forest Credit Bank, second-mortgage loans within limits to be prescribed by the Congress.

c. To purchase Forest Credit Bank debentures when there is not a ready market for them in the money market, or when the Treasury may prefer to have them absorbed in that way rather than in the open market.

(In case the Federal Farm Mortgage Corporation is not authorized to perform these functions other provision should be made.) For example, bonds and debentures might be purchased directly by the Treasury or by the Reconstruction Finance Corporation. Second-mortgage loans could be made available through appropriating directly to the Bank a special fund for this purpose. This would appear, however, to be a less economical way of using funds than to operate through a multiple-purpose organization such as the Federal Farm Mortgage Corporation. In the opinion of this committee, the Federal Farm Mortgage Corporation has proved to be an especially well-suited mechanism for supplementing the Federal land bank system and may again be needed for that purpose. It could perform a similar useful service in connection with the Forest Credit Bank.

IV. Modification of the powers and duties of the Federal Land Banks.

The Federal Land Banks have now most of the authority needed for making suitable loans on forest lands associated with farms and possibly for making loans, within the amount limits prescribed, on forest lands not associated with crop lands. Loans of this latter type are now being made but the language of the act is not very specific with respect to authorization for them. Such authorization should be clarified and provided by specific legislation.25/ The land banks are limited to loans of $50,000 and to a plan of repayment consisting of "a fixed number of annual or semi-annual installments." Presumably this means that, except under emergency legislation, payments on principal must be made each year in accordance with a standard amortization plan. To meet adequately the need for forest credit and other small forest holdings, the land bank legislation should be modified to provide:

a. A specific directive that the banks undertake to provide credit for forest-land purchase, development, or operation in amounts not larger for any individual borrower than those authorized for farm loans, provided the loan meets the bank's requirements as to safety and is based upon an agreed plan of operation for such forest land.

b. A provision that repayments of principal of loans on forest lands need not be made annually, provided they are made in accordance with an agreed schedule based on a program of development and harvesting of timber that is acceptable to the bank.

25/ If such authority is not confirmed or made specific by further legislation, the land banks could in any event act as agents for the Forest Credit Bank in making loans of this kind.

c. Specific authorization to act as agent for the Forest Credit Bank in making and supervising loans of other sizes and types.

It does not follow that all land banks would make forestry loans nor that forestry loans of this class, made in a given land bank district, would necessarily be made by the land bank. The Forest Credit Bank should have authority to make loans of this type and where conditions are such that they can be handled more economically by establishing branches or local offices of the Forest Credit Bank they would be provided in that way. Where the amount of lending on forest lands is of sufficient volume to warrant establishing a branch or office of the Forest Credit Bank, better and more specialized service can usually be provided in that way for strictly forest properties and, in some cases, possibly for forest lands associated with farming. Cases of the latter sort would be infrequent, however, since convenience and economy of supervision would normally call for handling all of the mortgage loan on a given farm through the land bank. Adequate development of forest credit for farms will require close cooperation on the part of the land banks, the Forest Credit Bank, the United States Forest Service, State foresters, and other agencies. Where such lending is in significant volume land banks will, of course, need trained forest appraisers and some forest technicians either as part of their own staffs or on assignment from the Forest Credit Bank, the Forest Service, or other agencies. In some land bank districts the need for loans of this kind may be too small to warrant maintenance of appropriate staff by either land banks or Forest Credit Bank. In some of these it may be feasible for the Forest Credit Bank to serve such scattered borrowers as exist through special arrangements with State foresters or other agencies.

V. Broader discounting authority for the Federal Intermediate Credit Banks.

The Federal intermediate credit banks would need additional authority:

a. To discount loans made for the production, marketing, and warehousing of forest products, for current or short-term forest improvement work, and other forestry operations. Such discounting authority should pertain to loans made by the production credit associations, the Forest Credit Bank, or branches of the Forest Credit Bank.

b. To use forestry loans along with farm production loans as backing for their debentures or to issue special series of debentures based on forestry loans.

c. To issue longer-term debentures than those now in use.

d. To make loans on forest products comparable to those now made on warehoused, nonperishable farm products as a means of aiding in stabilizing forest operations, producing for stockpile, etc.

VI. Some changes in policies of the Production Credit Associations.

If the discounting authority of the intermediate credit banks to be broadened as indicated above, the production credit associations would need mainly some changes in policy plus some technical guidance in making loans for forest development and operation. The language of the act, however, should be made more clear that such types of loan are contemplated.

In practice it would be inadvisable for initiation of lending of this kind to be undertaken on a broad front at first. The making of such loans would be simplest and probably most needed, at first, in the areas of rapid timber growth and heavy timber production as, for example, in the South. As experience is gained and personnel developed, loans could be made available in other areas.

VII. Some use of the Banks for Cooperatives in making loans to forestry cooperative associations.

The development of forestry cooperatives is as yet experimental. It is doubtful that the banks for cooperatives should be expected to make or supervise loans of this kind from their own funds at this time. Such loans might well be authorized on a modest scale with special funds appropriated either to the Forest Credit Bank or to the United States Forest Service. The banks for cooperatives should, however, be authorized to act as agent for the lending agency where such arrangement is mutually satisfactory and give promise of facilitating sound development of better forest practice. The technical problems involved far outweigh the special knowledge of cooperative practice which would be available through the banks for cooperatives. There may be eventually, however, a good many instances where cooperatives mainly concerned with other kinds of activity will find it profitable to include some forest operations with their other business. The authorization of the banks for cooperatives should be broad enough to permit loans based on such activities of the cooperatives, but such loans should not be made except in close collaboration with the Forest Credit Bank or the United States Forest Service with respect to decisions to loan and the technical guidance and supervision to be provided in connection with the loan.

SUMMARY

Because of its vast initial resources in virgin timber stands, the United States has been able until now to supply its needs for forest products without a production program that would offset drains on its forest resources. Timber depletion has now reached a stage, however, at which drains on the forest substantially exceed new growth. Unless there is a major change in policy and practice the Nation must in the not distant future manage with smaller supplies of lower quality forest products at higher cost. This situation can be substantially improved if adequate provision is made for encouraging better use of the lands now in forests and supplying the credit, educational, and technical aid needed to make improved methods of timber production attractive to timber-land owners.

To bring about such a major change in the handling of the Nation's forest lands will require considerable investment of private funds since the major part of the forest lands is in private hands and should remain so. Many forest-land owners will be unable to finance the improvements needed except with borrowed funds and will not find it attractive to do so unless loans are avilable to them at low cost and for fairly long periods. They will also need considerable education in forest practice and aid in planning their operations so as to improve and increase timber production on their lands.

Many of the values resulting from improved forestry are of such nature that they accrue to the public but cannot be captured as private income to the owner of the forest land. Because of this the public is warranted in providing machinery for channeling credit into the industry at the lowest cost consistent with sound credit practice and in providing at public expense the major part of the educational and planning aid needed, as well as some of the expense for protection against fire and other hazards. These responsibilities on the part of the public have long been recognized and partially met through the work of the United States Forest Service, the State forest services, and other agencies. The proposals made look to some enlargement and increase in effectiveness of such aids to the forest industry.

To make general improvement of forest practice feasible and attractive to forest-land owners, substantially better financing arrangements than those now available must be provided. Private lending agencies have not tended to make loan funds available to the industry on suitable terms for sustained yield, long-term development of the forests. Such loans from private agencies as are available are mainly for liquidation of existing stands of mature timber. As in the farm loan field, the establishment of a soundly conceived federally-sponsored credit system may well provide techniques and experience which will lead to more and better credit through private lending agencies in addition to those provided by the Government-sponsored agency.

To accomplish the objectives outlined above, it is proposed that there be established in the Farm Credit Administration a Forest Credit Division and a Forest Credit Bank. The Forest Credit Bank would be designed primarily to serve the larger commercial foresters. Much of the potential

capacity for production of timber products, however, is on farms and in small scattered holdings. It is proposed, therefore, that the fullest practical use be made of existing agencies of the Farm Credit Administration, particularly the land banks and production credit associations. With some modifications in policies and legal authorizations these agencies can supply much of the credit needed by the owners of small forest-land holdings and can do so economically and efficiently.

It is recognized that an effective forest improvement program will require considerable educational and technical aid to timberland owners, and the plans proposed envision active cooperation of the United States Forest Service, the State foresters, and other agencies with the credit agencies in developing and improving the forest lands on which loans are made.

For reasons stated in the report, the plan of organization proposed contemplates a single Forest Credit Bank capitalized by the Government. This Bank would be authorized to issue bonds and debentures based on loans for forestry purposes and to make loans for purchase of forest lands; for refinancing loans on such lands; for improvement and development of forest lands; for forest equipment and facilities, including fire protection facilities, roads, etc,; for harvesting operations; and for other purposes appropriate to constructive forest operation.

The Bank would be authorized to establish branches and local offices where needed for efficient operation and would have a system of advisory committees designed to keep it in close touch with the needs and wishes of its borrowers and with other agencies of the United States Government that are concerned with conservation and forest improvement.

An alternative plan of organization, providing for borrower participation in the ownership and management of the bank, is presented in Appendix C.

The plan proposed involves only minor modifications in the loaning authorizations and procedures of the Federal land banks, the production credit associations, the banks for cooperatives, and the Federal intermediate credit banks. Here the principal changes needed are in the direction of more positive arrangements for serving the owners of forest lands and specific legislative authorization and direction to include this as one of their functions wherever financing through these channels appears more economical and appropriate than through the Forest Credit Bank. Whichever channel is used, loans would be based on agreed plans of forest management and repayment schedules adjusted to the management plans.

It is proposed also that certain appropriated funds be made available through the Forest Service and the Forest Credit Bank, for aid in developing cooperative forest enterprises and providing more adequate processing facilities in areas in which they are not now available or are not suited to the local needs.

A comprehensive program of forest development and financing, such as that proposed, should make feasible and attractive a relatively rapid improvement in forest management in the United States, should contribute to a

more adequate supply of forest products in the future than is now in prospect, and should facilitate the flow of private investment funds into forestry and enlarge employment prospects in areas where forest lands are in need of development.

APPENDIX A

THE FOREST SITUATION IN THE UNITED STATES

Extent and Condition of the Forests

One-third of the land area of the United States is forest land. Some of the forest lands, because of low productivity or inaccessibility, are incapable of producing commercial timber. Some that can produce timber have been withdrawn from such use because they are more valuable in parks or for protecting watersheds. Three-quarters of the forest area (around 460 million acres) is available for and considered capable of growing timber.

A relatively small portion of this land will perhaps be cleared for agricultural crops and pasture but this is likely to be offset by reversion of other lands to forest. On the whole, there is not likely to be any significant reduction in the area that will find its most economic use in producing timber.

Ample timber supplies are essential to our national welfare. Our economy requires wood in many forms and for a multitude of products. Wood is the basis of a great number and variety of industries, which directly and indirectly employ millions of people. The use of forest land for growing wood not only furnishes important raw materials of many kinds but supports a substantial portion of the population in the forested regions.

But most of our forest land has not been managed so as to yield continuous supplies of timber. Failure to cut in large areas of mature and overmature stands is resulting in the loss of a large volume of valuable timber through decay and other natural causes and through prevention of net new growth in static virgin stands. With proper methods of management, most of this wastage of mature timber could be utilized without depleting the growing stock and opportunity would be made for more net annual growth by cutting out mature timber so that more young trees would have a chance to grow. In cutting mature stands, the usual practice has been to take out all merchantable timber over large areas and to leave only the poorer trees for future growth. Most of the cut-over areas are only partly productive, because they are inadequately stocked with trees that will make good timber. Building up the inferior second-growth stands into satisfactory growing stocks is a major problem, especially in the East. Another major problem, and one that will take even longer to solve, is that presented by the 70-odd million acres of forest land that will have to be planted with trees if it is to produce commercial timber within a reasonable time.

Table 1 shows the area and character of forest cover on our potential timber-producing lands, in the principal forest regions.[1]

1/ These figures and others used in this section are based on estimates made by the Forest Service in 1938. They are subject to change upon the completion of a comprehensive reappraisal of the forest situation which is now under way.

Table 1. - Character of growth on commercial forest land, by regions - 1938

Region	Total area	Character of timber cover			
		Saw-timber	Cord-wood	Small trees	Not re-stocked*
	Million acres				
Northeast	59	21	15	15	8
Central States†	29	9	9	5	6
Lake States	52	7	11	13	21
South	203	97	48	29	29
Northwest‡	74	44	12	9	9
California	14	12	§	§	2
So. Rocky Mts.	31	23	6	§	2
Total	462	213	101	71	77

* Includes land with scattered young growth, insufficient to produce a merchantable stand.
† Includes small areas in the plains region.
‡ Washington, Oregon, Idaho, Montana.
§ Less than one-half million.

Ownership of the Forests

The ownership pattern has had and will continue to have a dominating influence on the character of utilization of our forest land. Generally, the objectives of public ownership are much broader than those of private owners and are concerned with values and benefits to the general public which cannot readily be commercialized by private owners. Furthermore, public bodies naturally take a longer view than most private owners and have greater financial ability to carry out measures that promise only small or long-deferred monetary returns. Similarly, there are wide differences in the objectives and the financial capacity of various classes of private owners. Farmers usually have quite different purposes in owning woodland from large industrial owners. In some respects, they are in a better position to manage their woodlands intensively but in other respects they are less able to do so. Small nonresident owners have still different reasons for holding woodlands and generally are least able to manage them well.

Full information on who owns our forest land is not available. Reasonably good estimates can be made, however. The approximate division of the commercial forest area between public and private ownership and between farmers and other private owners in the principal regions is shown in table 2.

The 139,000,000 acres of farm woodland is owned by approximately 3,500,000 farmers, with an average holding of about 40 acres. Almost as large an area, or about 130,000,000 acres, is held by nonfarm owners in tracts of less than 5,000 acres, most of them comparable in size to

farm holdings. The number of owners in this group is estimated at between 500,000 and 1,000,000. These include small industrialists, individuals who live and work in villages and cities often at a long distance from their woodland holdings, persons who have retired from active work, and a miscellaneous class of owners, few of whom live on or near their properties. A survey made in 1938 indicated that there were then about 50 companies or individuals with holdings larger than 200,000 acres and that their holdings would aggregate about 25,000,000 acres. Some 250 others owned from 50,000 to 200,000 acres apiece and had about 25,000,000 acres in all. This would leave some 22,000,000 acres in properties of 5,000 to 50,000 acres, with perhaps 2,000 to 3,000 owners.

Table 2. - Ownership of commercial forest land, by regions - 1938

Region	Public*	Private		
		Total	Farm	Other
	Million acres			
Northeast	5	54	17	37
Central States†	1	28	21	7
Lake States	21	31	15	16
South	15	188	84	104
Northwest‡	46	28	2	26
California	7	7	§	7
So. Rocky Mts.	26	5	§	5
Total	121	341	139	202

* Owned or managed by Federal, State, county, and municipal governments.
†, ‡, § See footnotes to table 1.

The Timber Supply

The supply of standing timber, the rate at which it is being cut or otherwise destroyed, and the rate of accretion through growth are factors that will determine how much timber we shall have in the future. Although small trees supply a variety of products, especially fuelwood and a portion of our pulpwood and fence posts, our greatest concern is with saw member; that is, trees large enough to be sawed into lumber.

The total supply of saw timber (not all of it yet accessible) was about 1,764 billion board feet in 1938. About five-sixths consisted of softwoods and one-sixth of hardwoods. Approximately 70 percent of such timber was west of the Great Plains. More than 20 percent was in the South while the Northeastern and Central States, together with the Lake States, had less than 10 percent. Federal, State, and local governments control about two-fifths of the saw timber, farmers about one-eight, and other private owners almost one-half. (See table 3.)

Table.3. - Stand and ownership of saw timber, by regions - 1938

Region	Total stand	Public	Private	
			Farm	Other
	Bil.bd.ft		Percent	
Northeast	84	4	24	72
Central States	14	4	70	26
Lake States	58	19	24	57
South	386	4	42	54
Northwest	883	56	2	42
California	214	42	1	57
So. Rocky Mts.	125	93	*	7
Total	1,764	42	12	46

* Less than 0.1 percent.

Rates of Timber Drain and Growth

In 1936, when economic activity was considerably below the levels of the 1920's and of the recent war period, 42.4 billion board feet of saw timber was cut from our forests. Besides that cut, 1.4 billion feet was destroyed by fire. Other destructive agents such as insects, tree diseases, and wind accounted for 4.0 billion feet, making a total drain of 47.8 billion feet. The annual growth of saw timber was about two-thirds as much, or 32 billion feet.2/

In the South, where one-half of the saw timber drain was concentrated, the drain was 1.2 times as much as the growth. The ratio for the other eastern regions combined was about the same. In the West, which has a high proportion of old-growth forest in which there is little net growth, the drain was nearly three times the increment - about six times in California. The ratios of drain to growth have undoubtedly been substantially larger since 1939, as the rate of cutting has increased.

Overcutting in the East has already reduced the stock of growing timber far below the volume requisite to keep the forests reasonably productive. It continues to take the best trees, so that the poor species and less valuable trees form an ever-increasing proportion of the remaining stands. The situation is especially acute in the most accessible forests. These frequently are cut as soon as the young trees barely reach merchantable size, although they have not then reached the peak of their growth in volume and value. As it costs more per unit of volume to log and saw up small trees, this process of overcutting is unduly increasing the cost of lumber and other wood products and depressing the stumpage return to landowners.

2/ The total drain of all wood, including small trees, was about 13.5 billion cubic feet and the increment 11.3 billion cubic feet. Thus, the annual drain is about 20 percent more than the annual growth.

In the West, cutting is concentrated in the more accessible forests while large areas of virgin forest remain undeveloped. Thus, the productive capacity of the forests as a whole is being reduced, while much current growth in a large portion of the forests is being lost because of failure to utilize timber that is ripe for cutting.

Future Timber Requirements

No one can say with assurance just how much wood we shall use in the future or how much we shall supply to other countries. Yet a sound program of forestry must aim to supply domestic requirements and foreign demands. Among the factors that will influence the quantity of timber we shall consume or sell abroad is the timber supply itself. An abundant supply of good timber, available at low cost, would encourage larger consumption. On the other hand scarcity, poor quality, and high prices will make for less consumption. Another important factor is the ability of people to purchase. A high level of prosperity and rising standards of living in the United States and abroad would bring increasing consumption of wood products. Many new uses for wood are sure to be developed in the coming years, just as many of our present uses have grown up during the last 100 years. There is reason to expect, too, that the United States will become an important source of supply for the world timber markets, if timber is available. World requirements tend to increase but few countries, except in the tropics, have suitable land available for making substantial increases in timber production.

Estimates made by the United States Forest Service indicate that we may require as much as 60 to 65 billion board feet of saw timber a year to meet our own needs and allow a reasonable margin for export. This does not allow for losses by fire and other destructive agents and does not include the large volume of small timber that will be cut for fuel and other products. Our forests cannot supply that much timber now without greatly reducing their production in the future. To reach a sustained output of this magnitude will necessitate widespread adoption of better forestry practices which will build up growing stock, increase the yield of usable wood, and reduce waste of the wood that is grown.

Wastes in Forest Management and Timber Use

What are major factors in the present situation that need to be corrected? Some of these have been indicated above. They may be grouped under two general headings: wasteful forest practices and wasteful utilization.

Wasteful forest practices that can be corrected include such things as: premature cutting of growing timber; "creaming" the stand by cutting the best trees and leaving the poorest; failure to provide for reproduction; excessive depletion of the growing stock; failure to apply appropriate silvicultural measures, such as thinning and improvement cutting, to increase the yield of usable timber; failure to protect the forests against fire, overgrazing, and natural enemies; failure to develop areas where the natural growth is now being lost for want of utilization.

Some of the wasteful utilization practices are: discarding of usable material in the woods and at the mills; use of relatively scarce high-grade timber for purposes for which low-grade timber that is available in abundance would suffice; inefficient methods of processing; improper seasoning and storage; inefficient handling and distribution practices.

Reasons for Wastes

Before undertaking to correct these wasteful practices, it is necessary to understand the reasons for them. Forest owners and operators do not destroy their forest and waste timber out of pure malice. A primary reason with most of them is lack of knowledge of correct practices, coupled with the inertia that causes them to follow the ways of the past instead of seeking to devise or learn of better methods. But even those who know how to apply better practices and would like to adopt them often cannot do so for economic reasons.

They may be under pressure to get cash for business purposes or to meet unusual or even day-to-day personal expenses, as is the case with many farmers and other owners of small tracts. Many may be unable to finance needed physical improvements such as roads, fire protection installations, and modern logging and milling equipment; or silvicultural improvements such as planting, improvement cutting, thinning, pruning, and salvage cutting. The lack of a market for low-grade timber may make close utilization impossible and it is often difficult for owners of small woodlands to market even their good timber advantageously. In many instances, both small holdings and large industrial holdings could be managed more efficiently and with less waste of timber if they could be enlarged so as to form units better adapted to sustained-yield management. Large areas of forest have been so badly wrecked that they cannot yield an appreciable income until an entire new crop of trees can be grown. Few private owners can undertake forestry on such land, except where restocking is easy, tree growth rapid, and the prospective crop of high value. This is especially true if credit is unavailable, is high in cost, or cannot be had for loans of adequate duration

How Wasteful Practices Can Be Remedied

The rehabilitation of most of the badly denuded land obviously will come about only through public action, either after acquisition and incorporation in public forests or through subsidizing private owners. Similarly, the public will have to bear most of the responsibility for management of forest lands of very low productivity and of some of the better lands in situations where commercial use must be subordinated to public values such as protection of watersheds, prevention of erosion, and provision of public recreation.

A very large part of the privately owned forest and virtually all of the forest-products industries will continue to be privately owned. For these, a fundamental remedy for wasteful practices will be the development of better methods, through research, and education of owners and operators in the use of these methods.

Federal and State legislation to regulate cutting practices on private land has been proposed as another means of preventing some of the wastage of forest resources. This needs to be coupled with various aids to forest owners, including such things as technical guidance and assistance in meeting some of the costs, such as those for protecting the properties against fire and other destructive agents.

Another remedial measure of fundamental importance is the provision, from some source of adequate financing for acquisition and development of forest land, for improvements in transportation facilities and utilization equipment and plants, and for cultural measures, all of which will be needed in varying degree to facilitate sustained-yield forest management. In many instances, financing will also be needed for operating capital and to facilitate orderly marketing of the products.

Sustained-yield forestry enterprises present quite different financial problems from the timber-liquidation enterprises that have dominated our forestry up to now. Largely for this reason, the traditional arrangements for providing credit are not well adapted to forestry enterprises. The great public interest at stake in the productive use of our forest lands, irrespective of who owns them, justifies the Federal Government in taking the lead in seeing that favorable forms of credit are available.

APPENDIX B

SUMMARY OF PRINCIPAL FEATURES OF EARLIER PROPOSALS FOR A FEDERALLY SPONSORED FOREST CREDIT SYSTEM

Digest of the Forest Credit Section
of
The Copeland Report,
Senate Doc. No. 12, 73rd Congress, 1st Session (1933)

A NATIONAL PLAN FOR AMERICAN FORESTRY

Letter
from
The Secretary of Agriculture
transmitting in response to
S. Res. 175, (72nd Congress)
The Report of the Forest Service of the
Agricultural Department on the Forest Problem
of the United States.

Recommendations in Section on Credit, Vol. 2, pp. 1125-1134

Organization

Recommends establishment of not more than four adequately capitalized banks ($25,000,000 each suggested), these to be under the control of the Federal Farm Loan Board.

Each bank to have a board of directors of seven members, some elected by the stockholders and some appointed by the Federal Farm Loan Board.

Recommends provision for a central organization of the banks to facilitate cooperative action and mutual aid, including issuance of bonds and debentures under joint liability of all the banks.

Bank Stock

Borrowers would be required to purchase stock in the regional banks in the amount of 5 percent of their loans. Stock would be transferable to purchasers of forest property in case of transfer of mortgaged property. Bank would have right to determine time at which stock would be taken up under option signed by the borrower at time of obtaining loan; that it, stock would not automatically be retired on repayment of loan.

The United States Treasury would purchase 40 percent of the stock and the banks might start operation with this amount of stock paid in.

Limitation of dividends on stock to 5 percent cumulative recommended.

Bonds and Debentures

Banks would have authority to issue long-term bonds based on mortgage loans and short-term debentures with joint liability of the banks for such securities.

Loans

Banks would make first-mortgage loans only on forest properties operating on a sustained-yield basis or preparing for such operation. Penalties would be authorized for violation. Loans to a single owner limited to 10 percent of bank's paid-in capital. (This would apply also to a parent corporation with subsidiaries or corporations with interlocking directorates.) Loans limited to 30 percent of appraised value based on prospective net income.

Rate of interest not to exceed 2 percent over that of last issue of long-term forest bank bonds. Period of amortization on long-term loans 30-50 years with 1 percent penalty if paid in less than 5 years.

Second mortgages would be authorized on properties on which forest banks hold first mortgages, such second mortgages not to exceed 30 percent of appraised value and not to be more than 25 percent of the mortgage loans outstanding. These would require amortization in 10 years and might carry an interest rate not exceeding 3 percent above the rate on the last sale of long-term bonds.

Loans would be made for improving productivity of organized forest properties, restricting cut, silvicultural measures, fire protection, etc. Loans would be made in annual instalments over periods up to 20 years. Loans would also be made to aid in orderly marketing of mature timber withholding it from an overburdened market for purchase and assembling of tracts into economic units for sustained-yield operation, for construction of transportation systems, and for acquiring, rebuilding, or constructing plants for complete use of forest products where these are not available.

Digest of the Fletcher Bill

(S. 3417, 74th Congress, 1st Session, 1935)

Organization

The Governor of the Farm Credit Administration would be authorized to establish from four to six forest credit districts and appoint a forest credit commissioner. The bill proposed creation of a corporation to be known as the Forest Credit Bank. Management rests in a board of directors consisting of the Secretary of the Treasury, the Secretary of Agriculture, the Governor, the Commissioner, and the Land Bank Commissioner.

Eligibility of Borrowers

Individuals, partners, associations, or corporations may borrow for:

1. Liquidation or refunding indebtedness.
2. Improvement, protection management, and operation of forest lands.
3. Purchase of land.
4. Construction or acquisition of transport facilities.

Rate of Interest

Rate to be not less than 2 percent in excess of the rate provided for in the last series of bonds issued by the bank.

Length of Loan

Maturity not to exceed 30 years.

Security

The loan must not exceed 50 percent of the value of the property.

Size of Loan

Minimum loan: $2,500.

Management of the Property

Must be operated on a sustained-yield basis.

Insurance

The bank is authorized to insure properties by charging a premium adequate to cover the risks involved.

Advisory Council

An advisory council is created for each district, also a national council.

Digest of the Report of the
Interbureau Coordinating Committee
(U. S. Dept. of Agriculture, 1940)

Forest Credit to Facilitate Sustained-Yield Management of Privately Owned Forests (Mimeographed)

Organization

Recommends organization of a forest credit division within the Farm Credit Administration to supervise a Forest Credit Bank with officers in the principal forest regions and to coordinate forest credit policies with the farm woodland credit policy of the land banks.

The forest credit division would collaborate with the Forest Service in specifying forest practices, checking and reporting compliance by the borrower, and appraising forest properties.

The Forest Credit Bank would be authorized to use any of the Farm Credit Administration agencies in carrying out its functions.

Forest Credit Bank

The bank would handle long-term forest credit (5-40 years) and intermediate credit (1-3 years, with provision for renewal) for specified forestry practices with which the borrowers must comply.

Credit would be extended only on forest properties capable of yielding net incomes within the period covered.

The bank would be financed through sale of Forest Credit Bank bonds.

Funds for intermediate credit might be obtained, in part at least, by rediscounting such notes with the Federal intermediate credit banks.

Size of Loan

Long-term loans ranging from $500 to $3,000,000 would be authorized.

Intermediate-term loans would range from $200 to $600,000.

Security

Long-term loans would be secured by first mortgages and would not exceed 30 percent of the fair appraised value of the property.

Intermediate-term loans would be secured by first and/or second mortgages and chattel mortgages and, together with the long-term loan, would not exceed 50 percent of the fair appraised value of the property.

Insurance

Forest properties would be insured against fire, storms, and natural enemies under the bank's auspices, through a special insurance fund. Premiums to cover cost would be collected from the borrowers.

Rate of Interest

The interest rate would be the same for large and small borrowers and should be as low as possible. There would be authorized a spread of not-to-exceed 2 percent between the interest rate of the last bond issue of the bank and the rate charged the borrowers.

Capitalization of the Bank

Capital funds needed for establishing the bank are estimated at $40,000,000.

Forestry Cooperatives

Credit would be provided to forestry cooperatives for processing and marketing forest products and for forest development and management.

Credit to cooperatives would be contingent upon the adoption of forestry practices designed to insure continued productivity of the forest lands operated.

Digest of the Pierce Bill
(H.R. 3458, 77th Congress, 1st Session, 1941)

Title I. Forest Credit Commissioner

Sec. 1. The Governor of the Farm Credit Administration is directed to organize a Forest Credit Division.

Sec. 2. (a) The President of the bank to be appointed by the Forest Credit Commissioner.

(b) The Commissioner (with the approval of the directors) would appoint the staff.

Sec. 3. The bill authorizes appropriation for administration, including assistance of the Forest Service.

Title II. Forest Credit Bank

Sec. 4. (a) The Governor is directed to charter a Forest Credit Bank with its main office in the District of Columbia, branch offices or agents to be provided at the discretion of the Governor.

(b) An appropriation of $40,000,000 is authorized, of which $25,000,000 is for Class A stock, $5,000,000 for surplus, $2,500,000 for a revolving fund for loans to cooperatives, and $7,500,000 for an insurance reserve.

(c) The directors are the Governor of the Farm Credit Administration (chairman), the Secretary of the Treasury or his representative, the Land Bank Commissioner, the Forest Credit Commissioner, the Chief of the Forest Service or his representative; two directors appointed by the Governor to represent borrowers until loans reach $20,000,000, after which the borrowers will elect them; and one director to be elected by cooperative association borrowers after such loans reach $2,000,000.

(d) The directors, subject to the Governor's approval, would control the business of the bank.

(e) Defines the powers of the bank.

(f) The bank shall require before approving a loan or any renewal or extension that the borrower adhere to standards of forestry practice consistent with sustained-yield forestry and satisfactory woods practice. Such standards are to be jointly established by the bank and the Forest Service and approved by the Governor and the Chief of the Forest Service, together with procedure for approving or formulating management plans and making inspections.

(g) Issuance of bonds up to 10 times capital and surplus is authorized.

(h) At least 50 percent of net earnings is to be added to surplus until the surplus equals the outstanding stock, 10 percent thereafter. The balance would be available for dividends to all classes of stockholders without discrimination.

(i) The bank may act as a depository of public funds and a financial agent of the Government.

Sec. 5. (a) Specifies purposes for which loans may be made.

(b) Loans not to exceed 30 percent of appraised value of property, nor to be less than $500 nor more than 10 percent of capital and surplus of bank.

(c) Loans to be secured by first mortgages on amortization basis (5 to 40 years), at interest not more than 2 percent above rate paid on bank's bonds.

(d) Provides for deferment of amortization (up to 10 years) and instalment loans, under certain conditions.

(e) Borrower must use funds for purposes specified in application and must comply with terms of agreement.

(f) Borrower must agree to comply with sustained-yield management plans and forest-practice standards and with State laws and regulations relating to fire protection and conservation.

(g) Each borrower to buy class B stock equal to 5 percent of loan.

(h) Each borrower to furnish insurance, through the bank or otherwise.

(i) Provides for crediting proportionate share of insured losses on loan.

(j) Provides for refusal of credit in States where laws or administration are inadequate to protect bank.

(k) Provides that the bank shall make inspections and appraisals at the borrower's expense.

Sec. 6. Authorizes forest-production credit loans (up to 3 years) not to exceed 50 percent of the value of the property, secured by first, second, or chattel mortgages; minimum $200, maximum 2 percent of banks's capital and surplus.

Sec. 7. (a) Authorizes district forest credit advisory councils of five members, two appointed by the Commissioner, three elected by borrowers.

(b) Authorizes a National Forest Credit Council to be composed of the chairmen of district councils.

Sec. 8. The bank to be examined at least annually; expenditures may be audited by the General Accounting Office if this is mutually agreed upon.

Title III. Credit to Forestry Cooperatives

Sec. 9. Authorizes loans to cooperatives for specified purposes.

Sec. 10. Prescribes certain requirements that cooperatives must meet, including requirement that members apply good forestry practices on their lands.

Sec. 11. (a) Facility loans to cooperatives may run up to 20 years, short-term loans up to 3 years.

(b) The security for loans is to be prescribed by the Forest Credit Commissioner, but facility loans may not exceed 60 percent of the value of the facility.

(c) Loans are to be subject to the same terms and conditions as under Title II, unless these are inconsistent with the provisions of this title. This includes the requirements with respect to forestry practices.

(d) Borrowing cooperatives must buy Class C stock in the amount of 5 percent of the loan.

(e) The Governor of the Farm Credit Administration shall prescribe the rates of interest to be charged.

Title IV. Miscellaneous

Sec. 12. The bank and its obligations are made instrumentalities of United States and are exempted from taxation.

Sec. 13. The bank may do business with Federal intermediate credit banks and banks for cooperatives.

Sec. 14. (a) to (e) provides penalties for misrepresentation, fraud, embezzlement, counterfeiting, etc.

Sec. 15. Separability provision.

The McNary Bill, S. 1136, 77th Congress, 1st Session (1941)

This is a companion bill to the Pierce Bill H.R. 3458, and is identical with it.

The Omnibus Bill, S. 2043, 77th Congress, 1st Session, introduced by Senator Bankhead (1941)

The forest credit provisions are the same as those of the Pierce Bill.

The McNary Bill, S. 47, 78th Congress, 1st Session (1943)

This is a reintroduction of S. 1136 mentioned above and is thus identical with the Pierce Bill.

The Hook Bill, H.R. 6221, 79th Congress, 2nd Session (1946)

This section providing for a forest credit bank is identical with the corresponding provisions of the McNary and Pierce bills except in providing, for first-mortgage loans, up to 40 percent of appraised value (instead of 30 percent) and on production loans an upper limit of 60 percent instead of 50 percent.

APPENDIX C

ALTERNATIVE PLAN OF ORGANIZATION FOR A FOREST CREDIT BANK

In the event it is considered advisable to provide for borrower participation in the ownership of the Bank and possibly eventual full ownership of it, this could be accomplished in the following manner with only minor modifications of the general plan outlined in the report.

The original capital would be advanced by the Federal Government as was done in the land bank system and the banks for cooperatives and, in part, in the production credit system. Borrowers would be required to take stock or a membership participation in the bank as a condition of obtaining a loan. Traditionally, the stock requirement in organizations of this kind has been 5 percent of the amount of the loan. For reasons more fully discussed in the main body of the report, there are objectionable features to this. However, it is one possible method of providing for partial borrower-ownership of the Bank.

A procedure more in keeping with modern cooperative practice would be to provide for ownership and control through stock shares or memberships of uniform and relatively nominal value, each entitling the owner to one vote. Under this plan, ownership by the borrowers would be gradually built up by an increase in the interest charged over and above the margin proposed for meeting losses on loans. Such increase in the interest charge would be credited to the borrower in the form of certificates of participation in the ownership of the bank, these to be retired in rotation when the loan is paid off and the borrower ceases to make payments of interest. Under this plan the borrower still would contribute to the capital of the Bank in proportion to the size of his loan but would do so more gradually than if required to take out 5 percent of his loan in stock at the time of obtaining the loan.

If this plan is adopted it is recommended that such accumulation of ownership rights by the borrowers be specifically for the purpose of building up the capital fund needed to assure salability of the Bank's bonds and not as a fund for absorption of ordinary current losses on loans. The reasons for this recommendation are more fully discussed in the previous section on the organization of the Bank and methods of margining loans. Under the plan here proposed, the capital fund of the Bank represented by borrower-owned certificates of ownership would remain intact and would rotate in much the same way as the capital stock of the land banks now does. An additional charge would be made on each interest payment of each borrower to maintain an insurance fund for meeting current losses and delinquencies, thus reflecting quickly to the borrowers any inadequacies in the management of the Bank or adverse lending conditions that should be taken account of and at the same time maintaining the Bank's capital without impairment.

In substance this would provide for the same procedure in margining loans as that described in the main report but would require an additional fixed amount of interest payment from each borrower to provide his proportionate share in the Bank's capital.

Under a plan such as that just outlined, borrowers should obviously have more authority and direct participation in the management of the Bank. In the initial period when the bulk of the Bank's capital would consist of Government funds it is evident the Government would insist on having a controlling voice in its management. It is suggested that during this period the Bank's directing board consist of seven members, four to be nominated by the Governor of the Farm Credit Administration and three to be elected by the borrowers as soon as the Bank is sufficiently in operation to make that feasible. Election of the elected members of the board would be by the elected members of the advisory committees of the branch banks, who in turn would be elected by the borrowers in their areas.

At such time as borrower-ownership comes to be larger in amount than the Government's investment, borrower-membership in the board should be enlarged presumably to consist of four of the seven members. In view of the general responsibility of the Government for the affairs of the Bank, the integrity of its bonds, etc., it would seem advisable that the Government continue to have a representation of three directors, even though its proportion in the capital ownership might eventually be substantially reduced.

The plan here outlined has several disadvantages which were discussed in an earlier section of the report. There is danger that a board consisting of members from widely scattered parts of the country would not be able to meet frequently enough to keep in close touch with the Bank's affairs and thus might fail to function effectively. The requirement that borrowers contribute to the Bank's capital, either through initial purchase of stock or through gradual accumulation would, of course, increase the rate of interest rate charged and might cause the Bank's facilities to be used less extensively than would be desirable in the national interest. The advantages on the other hand would be in having the borrowers feel that they are dealing with their own institution and in somewhat greater freedom of action on the part of the Bank as a mixed-ownership or borrower-owned institution than as a Government corporation. As already indicated, this committee is of the opinion that establishment of the bank on a wholly Government-owned basis would be the simplest and most workable arrangement.